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THE UNIVERSITY OF ALBERTA

AN EXAMINATION OF MOTIF DESCRIPTION (LABANOTATION) IN CHILDREN'S DANCE

BY

(C) ANN KIPLING BROWN

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS.

DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS STUDIES

EDMONTON, ALBERTA

(FALL, 1986)

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THE UNIVERSITY OF ALBERTA

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled An Examination of Motif Description (Labanotation) in Children's Dance submitted by Ann Kipling Brown in partial fulfilment of the requirements for the degree of Master of Arts.

J. L Boorman
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Date: April 24, 1986

ABSTRACT

There are certain speculative statements in the literature on dance and notation which suggest that notation has not only an important role to play in the field of dance, but also in the area of dance education for children. Significant steps to implement the Laban system of notation have been made in the area of dance education with students at the tertiary level of education. The aim is that through the use of notation, the student will develop the awareness of the spatial, temporal and dynamic elements of movement and increase their knowledge and understanding of movement and dance. Labanotation is seen to play an important part in the understanding of movement, assisting in the exploration of movement possibilities and providing the means by which dance experiences can be codified.

The purpose of this study was to design, implement and evaluate an integrated programme of notation and creative dance. A further aspect was to investigate whether children between the ages of nine and fourteen years can learn and use selected aspects of Labanotation, i.e., Motif Description, within the area of creative dance. A notation vocabulary was designed based upon the principles of the notation system and introduced to the group of sixteen children who participated in a teaching and testing programme. Each teaching session, lasting one and one half hours,

involved the practical exploration of selected themes of creative dance and the related symbols and principles of the notation system. After each of the two consecutive teaching sessions and after a two month time lapse following the completion of the programme, the children's ability to learn and use the notation system was tested. The results of the notation tests together with the responses and participation of each child were considered and the content and methods employed in the teaching programme and testing instrument were described and evaluated.

The results of this study, whilst inconclusive, provided information regarding the design and implementation of a notation vocabulary for children within a dance programme. The use of the creative dance form in the teaching programme presented the children with an appropriate vehicle through which to learn the notation system. Findings indicated that through practice the children were able to learn and apply the principles of the notation vocabulary in the writing and reading of dances. The children were able to recall and use the notation symbols and principles during the teaching programme and fairly well after the two month lapse of the programme. The children's individual scores ranged from high to low in relation to age, the older children scoring consistently higher than the younger children. The high scores were attained in the identification of basic actions of the body, the description

of the timing of action and the designation of which person performs an action. Average to low scores were attained in the description of the duration of an action.

Observations revealed a positive and enthusiastic response by the children to the experience in Motif Description and creative dance and affirmed the statements in the literature that children are able to apply the notation system in the writing and reading of sequences and dances. The study provides recommendations for further research and implications for the planning and design of a notation experience for children in a creative dance programme.

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TABLE OF CONTENTS

Chapter		Page
One	The Problem	1
	Introduction	1
	Statement of the problem	4
	Purposes of the study	4
	Definition of terms	5
	Research Questions	5
	Design of the study	6
	Limitations of the study	7
	Delimitations of the study	7
	Significance of the study	8
	Summary	9
Two	Review of the Literature	10
	Introduction	10
	Symbolic Representation	10
	Creative dance form	18
	Summary	23
	The Laban system of notation	24
	The Applications of the Laban system of notation	35
	Summary	40
Three	Design of the Study	42
	Introduction	42
	Sample	42
	Materials	43
	Student Profile	43
	Notation Vocabulary	46
	Testing Instrument	47
	Scorers	48
	Individual Test Units	48
	Methods and Procedures	50
	Teaching Programme	50
	Testing Programme	54
	Analysis of Material	56
	Summary	57
Four	Analysis of Teaching Programme	59
	Introduction	59
	Discussion	59
	Observations	62
	Summary of the Findings	76

Chapter		Page
Five	Analysis of Notation Vocabulary and Testing Instrument	77
	Introduction	77
	I. Notation Vocabulary	78
	Basic actions: principle one	80
	Spatial directions: principle one.	87
	Timing of actions and stave indication: principles two and four	90
	Duration of actions: principle three	92
	Overall testing scores	93
	Summary	95
	II. Testing Instrument	95
	Recognition Tests	99
	Ordering and Sequencing Tests	99
	Comprehension Tests	101
	Modes of Response	104
	Symbol-to-written response	105
	Symbol-to-action response	106
	Action-to-symbol response	109
	Individual Scores	113
	General Observations	116
	Summary of Findings	120
Six	Summary, Discussion of the Findings, Conclusions and Recommendations	122
	Introduction	122
	Summary of the Research Purposes and Procedures	122
	Design of the Study	123
	Summary and Discussion of the Findings in the Teaching Programme, Notation Vocabulary and Testing Instrument	124
	Notation Vocabulary	126
	Testing Instrument	129
	General Conclusions	134
	Recommendations	135
	Recommendations for the Design of a Teaching Programme which Integrates Creative Dance and Notation	135

Chapter | Page

Recommendations for the Design of a Notation Vocabulary which Can be Used Within an Integrated Notation and Creative Dance Programme . . . 135

Recommendations for the Design of a Testing Procedure 136
Recommendations for Further Study . . . 137

REFERENCES 139

BIBLIOGRAPHY 144

APPENDICES 157

1 Alberta Children's Creative Dance Theatre . 158

2 Eleven Action Families. Questionnaire Regarding Background Experience, Likes and Dislikes, of Action Families 159

3 Three External Judges 161

4 Assessment of Skill in Dance 164

5 Questionnaire Regarding Attitude Towards Notation 165

6 Summary of Responses and Recommendations of External Referees 167

7 Initial Notation Vocabulary 180

8 Request to External Resources for Reaction and Recommendations to Notation Vocabulary . 184

9 Modified Notation Vocabulary 186

10 Synopsis of the Teaching Programme 190

11 An Example of the Testing Instrument Sent to External Referees 199

12 The Scorers 203

13 Example of Nine Subtests 208

14 Notation Vocabulary Covered in the Teaching Programme and Testing Instrument 212

Page

15 Units of Notation Vocabulary Selected for Discussion 215

LIST OF TABLES

Table		Page
1	Testing Instrument. Notation Areas and Methods of Response	49
2	Attendance Records for All Sessions	51
3	Time Allocation for Testing Instrument	55
4	Modes of Response in the 3 Subtests for Each Area	97
5	Individual Scores for the Areas of Notation: Recognition, Ordering and Sequencing and Comprehension. Total Scores of Combined Areas for Each Testing Session	100
6	Results of Symbol-to-Written Subtests for Areas of Recognition, Ordering and Sequencing and Comprehension. Results Are Recorded for All Testing Sessions	107
7	Results of Symbol-to-Action Subtests for Areas of Recognition, Ordering and Sequencing and Comprehension. Results Are Recorded for All Testing Sessions	108
8	Results of Action-to-Symbol Subtests for Areas of Recognition, Ordering and Sequencing and Comprehension. Results Are Recorded for All Testing Sessions	110

LIST OF FIGURES

Figure		Page
1	Example of a Notated Dance, titled 'Tightrope' (Lesson 2)	65
2	Examples of Travelling Dance Phrases (Lesson 2)	69
3	Example of Notated Framework of the Study, 'Dancing Together', and the Additional Sections Notated by Two Children (Lesson 3)	71
4	Example of Dance, titled 'The Search for Gold: Failure', Composed and Notated by Two Children (Lesson 5)	73
5	Percentage Number of Times a Basic Action Symbol Correctly Identified in Four Testing Sessions	82
6	Children's Preferences for Action Families from First Questionnaire	84
7	Percentage Number of Times a Basic Action Symbols Indicating Directionality are Correctly Identified in Testing Sessions	88
8	Percentage Number of Times Principles of Timing and Duration of an Action are Correctly Identified in Testing Sessions	91
9	Examples of Dances Composed for Subtest Nine	114

Chapter One

The Problem

I. Introduction

In the professional field of dance the role and practical value of a comprehensive and universal system of movement notation has been recognised (Clark and Crisp, 1974; Hutchinson, 1970; Hutchinson Guest, 1984; Lange, 1977). In this field notation scores of varied dance forms are available to the repetiteurs and dance companies. Currently, the role and practical value of notation in dance education, particularly in the dance education of children, is under examination (Calouste Gulbenkian Foundation Report, 1980).

This study addresses the problem as to whether children between the ages of nine and fourteen years can learn and use selected aspects of Labanotation, i.e., Motif Description within the area of creative dance. Motif Description has been selected as, on the one hand, it deals with the broad and general statements about movement and, on the other hand, it can record the specific and precise detail of movement occurrences. This study also involves the design and implementation of a teaching programme and testing unit in order to consider the appropriate material and procedures for learning and using notation relevant to these children.

Background to the problem

Creative dance has been advocated as a form of dance specifically appropriate to the dance education of children between the ages of four years and sixteen years (Boorman, 1971; Hill, 1979). This form is recommended for inclusion in the curriculum as it provides "valuable cognitive experiences" (Boorman, 1971, p. 53) and "highlights learning in the psychomotor, affective and cognitive domains" (Boorman, 1971, p. 54. Hill (1978) points out the importance of creative dance experiences in the aesthetic education of children as it provides:

> .... the interrelationship between the feeling or emotion, the conceptualization of them and then translating of the idea or the emotion into movement; it is obviously concerned with selection and critical judgement about rhythms, patterns, shapes and their suitability in any given situation. (p. 66).

Throughout the period 1970 to 1980 sporadic indications occur in the literature relevant to the role of notation within the dance education of the child (Hill, 1978; Hutchinson Guest, 1984; Redfern, 1983). The concern that the creator and performer of dances, involved in a creative process, needs a language in which the creative aspects of movement can be analyzed and recorded has prompted discussion regarding the functions of a notation system. Causeley (1969) considers:

> One all-important function of notation is to provide an objective record of movement and a common denominator for thinking and communication, independent of any theory, style or technique: in fact a universal language. (p. 13).

More recently stronger recommendations (Calouste Gulbenkian Foundation, 1980) have been made regarding the implementation of a notation system in the dance experiences for the child. The Calouste Gulbenkian Foundation Report (1980) considers that notation makes a significant contribution to the curriculum and emphasizes the importance of students learning notation:

> Such a tool is essential, equally, to the study of the history of human movement, human culture and human communication ... Notation should become a necessary element in all movement study ... (p. 106).

In both the fields of creative dance and notation there is minimal research available to support the claims that notation is a valuable aid in the dance teaching situation. The claims are usually personal, any reference to a situation being anecdotal and unsubstantiated. The difficulties which contribute to the lack of research are: firstly, that there are few teachers of children's creative dance who are also knowledgeable in notation; secondly, there is a lack of ongoing programmes in creative dance in which children have had substantial background; and, thirdly, there is little research in either the field of notation or creative dance.

This study was made possible for two reasons: firstly, the researcher was knowledgeable in both the area of notation and creative dance; and, secondly, the children involved in the study have had an extensive experience in creative dance.

II. Statement of the problem

To consider whether children between the ages of 9 and 14 years with a minimum of three years creative dance experience can learn and use the selected aspects of Motif Description (Labanotation) within the creative dance form.

III. Purposes of the study

The purposes of this study were:

1. to identify a notation vocabulary which would be appropriate for these children.

2. to design and implement a process of learning and instruction which would be relevant for children between the ages of 9 and 14 years and would enable the children to learn and use the notation system in a creative dance experience.

3. to determine whether the children had learned and were able to apply the selected symbols and principles of the system in the writing and reading of actions, sequences and dances.

4. to consider the children's attitudes and responses to the designed programme and, in particular, to the notation experiences.

IV. Definition of terms

Creative Dance provides an open framework of movement concepts, based on the interrelationship of the elements of body, space, time, dynamics and relationships, with which the child can develop a mastery of the body in order to use the language of dance expressively.

Labanotation is the process of recording movement on paper and involves the conversion of the elements of space, time, dynamics, parts of the body and relationships into abstract symbols. The abstract symbols are placed within a vertical staff and modified according to the required detail of description. Labanotation provides the following kinds of description: Motif Description, Effort-Shape Description, and Structured Description.

Motif Description

In this study Motif Description, concerning the general statement or particular features of a movement, is selected as the method of recording movement. The general symbols used to denote action and relationships are recorded within the open staff and are modified to describe more detailed action.

V. Research Questions

In addition to the more general aspects of the study, i.e., the implementation and evaluation of the programme development, it was attempted to answer the following specific questions:

1. Were the children able to recognize the notation symbols and principles of the system in the writing and reading of actions, sequences of actions and dances?
2. Were the children able to order and sequence actions using the notation symbols and principles of the system in the writing and reading of actions, sequences of actions and dances?
3. Were the children able to comprehend the notation symbols and principles of the system and interpret the content of a score?
4. Were the children able to recall and use the notation symbols and principles during the teaching programme and after a two month lapse of the programme?
5. What were the children's reactions and responses to the notation programme?

VI. Design of the study

A group of 16 children, 15 girls and one boy, between the ages of 9 years 0 months and 14 years and 0 months participated in the teaching programme and testing unit. Each teaching session, lasting one and one half hours, involved the practical exploration of selected themes of creative dance and the related symbols and principles of Motif Description. After each of the two consecutive teaching sessions and after a two month time lapse following

the completion of the programme, the children's ability to learn and use Motif Description was tested. The results of the notation tests together with the responses and participation of each child were considered and the content and methods employed in the teaching programme and testing instrument were described and evaluated.

VII. Limitations of the study

It was accepted by the researcher that the study was limited in the following ways:

1. It was only a small group of children who took part in all teaching and testing sessions.

2. The teaching programme and testing instrument were designed and implemented by the researcher.

3. The length of the programme was established particularly for this study.

VIII. Delimitations of the study

The following delimitations defined the boundaries of the study:

1. The group of children who participated in the study represented a particular area of the population of children involved in creative dance.

2. The study involved ten sessions, six teaching sessions and four testing sessions, each session being one and one half hours in length.

3. Motif description was selected as the area of notation to be learned and used by the children in the integrated dance and notation experiences.

4. Specific tests were designed for the study in order to assess the children's ability to learn and apply the selected aspects of the notation system.

5. Observations from the video recordings and the designed questionnaire were used to consider the children's responses and attitudes to the creative dance and notation experiences.

IX. Significance of the study

This research may contribute to the field of Labanotation as it interrelates with children's creative dance experiences.

The research will provide information on:

1. The selection of appropriate vocabulary and principles in Labanotation that can be used by children between the ages of 9 and 14 years.

2. A teaching programme which can be used to introduce Labanotation to children.

3. A testing instrument that can be used for assessing the children's ability to use the symbols and principles of Labanotation.

4. The children's reactions to Labanotation.

X. Summary

In this chapter the problem as to whether children between the ages of nine and fourteen years can learn and use Motif Description (Labanotation) was identified. The population and design of the study was defined and the purposes were described as follows: to identify a notation vocabulary, to design and implement a process of learning and instruction; to determine whether the children had learned and were able to apply the selected aspects of the system; and, to consider the children's attitudes and responses to the notation experiences. The chapter concluded with a description of the significance of the study.

Chapter Two

Review of the Literature

Introduction

Debate on script, signs and symbols is extensive (Best, 1974; Cassirer, 1944; Langer, 1957; Sapir, 1949). It is found in the literature on acquisition and development of children's language (Britten, 1970; Chomsky, 1968; Vygotsky, 1962), in the literature on children's development (Bruner, 1966; Piaget, 1970; Schmidt, 1973), in the literature on philosophy and the arts (Eisner, 1978; Reid, 1969; Wittgenstein, 1953) and the specific field of dance (Langer, 1952; Redfern, 1983; Sheets-Johnstone, 1984).

This review of literature addresses the two interrelated areas inherent in this study; the perceived importance of symbolic representation in children's learning with particular attention to creative dance; and, notation as a symbol system with specific reference to the Laban system of notation.

Symbolic Representation

The symbolic world of the human has been described by many scholars, three of whom are Best (1974), Cassirer (1944), and Langer (1957). They have written that man organizes and expresses his experiences through different symbolic forms of representation. Cassirer (1944) identified mankind as an "animal symbolicum" and explained that

symbolic thought and expression were the most characteristic features of human life:

> ... man lives in a symbolic universe. Language, myth, art and religion are parts of this universe. They are varied threads which weave the symbolic net, the tangled web of human experience. (p. 25).

Langer (1952) explains that any thought that is verbally expressed is conveyed through the use of signs and symbols. The interpretation of signs is the basis of the animal intelligence and signs are used to guide their practical activities. Man, too, is governed by signs which may be natural, or artificial, dangerous or fortuitous. Langer (1952) states:

> The logical basis of all these interpretations, the mere correlation of trivial events with important ones, is really very simple and common; so much so that there is no limit to what a sign may mean ... As for bells, the world is mad with their messages. (p. 59).

The sign is considered either as something that one acts upon or as a means to command action. Symbols, on the other hand, are not a substitute for an object, but are the instruments of thought. It has been noted (Shotwell, Wolf and Gardner, 1980) that adults in all cultures devise and utilize a wide range of symbol systems which range from gesture, language, drawing, sculpture, music and dance. Man, in inventing these various symbol systems, has provided

different modes of expression through which understanding and awareness of the world can be conceptualized and communicated. Each symbol system is unique and representative of a particular area of thought and, as Eisner (1978) further explains, "each symbol system sets parameters upon what can be conceived and what can be expressed" (p. 618).

A symbol system involves a particular medium of representation, such as movements, pictures, signs and sounds, and provides a "language" with which to describe and evoke ideas. The different symbol systems available to man "create different forms of awareness and make different modes of understanding possible" (Eisner, 1978, p. 617). It follows that one particular symbol system may be more useful for some types of information than for others. The artist selects music rather than words to portray an idea or chooses movement rather than visual patterns to communicate a feeling. An idea or feeling may be conceptualized in one mode of representation, but expressed through another, for instance, the poet may visualize ideas, but choose to communicate these ideas through words. Eisner (1978) considers that this process provides "a rich interaction between modes of conceptualization and the form one chooses to publicly render what one has conceptualized" (p. 619).

Langer (1952) describes symbols as "vehicles for the conception of things" and comments:

> In talking about things we have conceptions of them, not the things themselves; and it is the conceptions, not the things, that symbols directly "mean". Behaviour toward conceptions is what words normally evoke; this is the typical process of thinking. (p. 59).

It is the ability to conceive, discuss and remember ideas and feelings to give meaning to his actions which sets man apart from the animal kingdom. Langer (1978) states that real thinking is only possible "in the light of genuine language, no matter how limited, how primitive" (p. 61). Symbolic languages have arisen because of man's need to externalize his ideas and are, therefore, a product of man's cognitive activities. The capacity to use symbols has often been considered to be the hallmark of human cognition and that "symbolic activity is the starting point of most intelligence" (Langer, 1978, p. 244). Consequently, in whatever mode of symbolic transformation, the two aspects of communication, that is the conveyance of meaning of something to someone, must always be present. The recognition of the importance of using symbols to attain and to organize ideas and beliefs has altered the conception of intelligence from the acquisition of factual and sense data to the ability to use data in building concepts and communicate expressively.

The acquisition in proficiency of symbol use has been acknowledged as a primary achievement of the child's first years of life (Bruner, Oliver and Greenford, 1966; Piaget,

1967; Werner and Kaplan, 1950) and it has been accepted that by the time children are between the ages of five and seven, they are generally quite skilled in the use of several symbol systems, "exhibiting the capacities both to produce 'legible' messages in these systems and to 'read' those communications fashioned by other members of the culture" (Shotwell, Wolf and Gardner, 1980, p. 175).

At each stage of development the child has a characteristic way of viewing the world and explaining himself. Piaget (1967), researching the structures and processes by which knowledge is acquired, outlined the course of intellectual development as falling into three stages: the preoperational state, the concrete operations stage, and the formal operations stage. At each stage, psychological structures develop which permit the performance of logical operations which could not be performed previously. Piaget (1967) did not consider that these structures were innate, but that they emerged through interaction between the individual and his environment.

The acquisition of these structures results in the ability to perform certain intellectual operations. Initially, the child is involved principally in establishing the relationship between experience and action and through symbols created by simple generalizations he learns to represent the external world. Later, the child is able to transform information about the real world into the mind

and, in so doing, begins to organize and use the information selectively in solving problems. These internalized symbolic systems are guided by the logic of classification and provide a means of structuring things directly encountered and experienced. Finally, the child is able to operate on hypothetical propositions and deal with possibilities which are not directly before him or already experienced.

Piaget (1967) determined that children pass sequentially through these stages of intellectual development, individually taking time to develop a structure, and suggested approximate ages at which a particular stage might be reached. Each child's development and experience is unique, and as a child's needs at any one time are different, each child learns different things at various times because of his personal and particular experiences.

There is evidence that children learn when totally involved in a situation and Bruner (1966) supports the theories of Piaget when he suggests that children process information through three levels of experience. Although, at certain ages, children may have a tendency to learn primarily through one or other of these levels, they are continually involved in all three. The three levels of experience are termed enactive, iconic and symbolic modes. In the enactive mode the child uses action to manipulate and come to terms with his environment. The iconic mode uses

visual and sensory organization to identify and summon images. In the symbolic mode the child translates experience into language and other abstract representations. Bruner (1966) states:

> What is abidingly interesting about the nature of intellectual development is that it seems to run the course of these three systems of representation until the human being is able to command all three. (p. 12).

Eisner (1978) considers that one of the major aims of education is to "develop each child's ability to create meaning from experience" and he further states that in order to construct meaning the child requires "the use of skills applied within a symbol system" (p. 618). As each symbol system provides a unique way of knowing and noting experiences the absence of any one symbol system, and thus the lack of opportunity to both experience and acquire those skills needed to use a symbol system, would be "an impoverishment of the quality of education children receive" (p. 618). The opportunity to be involved in any one symbol system allows the child to explore and find meanings in that mode of viewing and experiencing the world. It is only after such a total experience that the individual can truly know and select a particular system to express personal ideas and feelings. Eisner (1978) also points out:

> ... when we choose to become "literate" in the use of particular symbol systems, we also begin to define for ourselves what we

> are capable of conceiving and what we have conceived to others. (p. 618).

Many forms of symbols are encoded in public forms which one must learn to "read" if one is to understand and communicate within those public forms or share ideas within a culture. Any written "language", in whatever form, the written script of the spoken language, music notation or the symbols of mathematics, is a means to communicate to others what one has seen or experienced and allows others to see what the individual has seen.

The communication and the recording of certain symbol systems is greatly facilitated by the use of coding in various forms. Coding or writing is a system of visual signs with which a symbol system is symbolized, for instance, spoken language, music and movement can be expressed in specific notational scripts. Ren Chao (1968), in discussing language and symbolic systems, considers that "if a language symbolizes ideas, writing is the symbol of symbols" (p. 8). A true case of writing can be claimed when an established visual symbol is specifically associated with a linguistic form so that a person, who knows the usage, on seeing the symbol, will identify only that particular symbol form.

A written language has been an essential factor in any culture as it is a means of transmitting and retrieving ideas, knowledge and information which can be extended

across space and time and between cultures. Written languages developed later than oral languages in all cultures, the first coded messages being photographic representations of situations and events. As the needs for communication and recording expanded and written languages developed, there was a transition from representational to symbolic recording and the signs and symbols became related to the meaning of a concept or an idea. The scope of communication is, therefore, extended and the record serves to expand the time reach, providing a memory aid and a means of repetition.

Creative Dance

Those educators involved in the area of creative dance would consider that the absence of this symbolic form of representation would deprive the child of a particular way of expressing ideas and feelings. It would seem that before the child, particularly the very young child, can experience or be introduced to those particular adult forms, such as ballet, tap, jazz or contemporary dance, there is a need to master the "language" of dance and experience those processes of selection and organization of the movement material for the child's own particular ideas and feelings. The adult forms of dance have a highly structured and specialized vocabulary which determine the type and extent of ideas and feelings that can be conveyed and, therefore, "the meaning or symbolic representation that can be achieved

by the child, is constrained by the dance form in which he is working" (Boorman, 1982, p. 5).

Boorman (1982a) has considered the particular contribution of the creative dance form to the cognitive development of the child and the importance of this non-verbal "language" to the child's ability to express and communicate. Boorman (1982b) states:

> It becomes apparent that there are meanings that a child can convey and receive only through dance. These are ideas, images and feelings that can be expressed and communicated in dance that cannot be rendered in verbal language, be it spoken or written, music, the visual arts, or any other idiom. (p. 2).

The creative dance form has a well defined conceptual structure based on the theories of Rudolf Laban (1963). Laban identifies, in an objective way, the range of movement possibilities which take place in space and time. These dynamic structures indicated through his spatial and effort analysis provide the vocabulary which can be used in the study of movement and dance. As Redfern (1978) points out:

> The great merit of Laban's principles (taken in the sense of his categorisation of movement) is that they focus attention on the material of dance, and provide a basis for dealing with this. This possibility of learning the "language" of dance, and not simply of the many dance "languages", has implications of the highest importance for the subject as an educational activity. (p. 129).

The creative dance form provides an open framework upon which to structure children's dance experiences and aid their aesthetic development as Hill (1978) states:

> ... the creative dance form, with the freedom it permits the child in developing movement patterns and the opportunities it provides him to select his own movements to depict his imagery and to learn the language to describe it, together with opportunities for developing a critical faculty by observing other children's dance, appears most likely to provide experiences recommended by experts in children's aesthetic education. (p. 64).

In consequence, the selection of creative dance as a means of achieving literacy in the "language" of dance rests in its broad, conceptual framework upon which the child can act and develop skill in creating and communicating through the medium of dance. The child comes to recognize that actions and a sequence of actions can be symbols for an idea and a dance can be created with these symbols, expressing what he wishes to say or wants others to know. There is an intrinsic satisfaction in dancing those actions which communicate what is meant to be said and a further satisfaction is achieved when new symbols are acquired and expand the means to express and communicate. Thus, as Boorman (1982b) explains, through this particular symbol system, there is opportunity to work with the material of dance from which "skilled mastery can increase" and the "capacity to construct and create can grow" (p. 3).

This conceptual approach enables children to explore and make statements about bodily rhythms, spatial tensions and relationships. Priddle (1975) explains that "the problems presented to the children focus upon the major components of movement, space - force - time ... and are geared to enriching the child's perceptual and conceptual understanding of movement per se" (p. 31).

The acquisition and development of a language will depend upon the child's capacity to engage in activities which will promote and extend his use of that language. Piaget (1973) identified that concepts cannot be taught through purely verbal activities and the giving of information, and that it is the child's use of concrete materials and the engaging in other activities which is essential to the act of learning. In the designing of a learning experience for children attention needs to be given to the stages of development through which the child passes as he develops his intellectual capacities and the organization of learning which occurs at the three levels of experience; the psychomotor, cognitive and affective domains (Piaget, 1967, p. 5). Although these three domains are indivisible it is possible within a well-formulated programme to focus upon one or other of these domains.

It is considered that the creative dance form can provide opportunities for learning to take place within all those three domains. Boorman (1971) explains that it is

important when designing a creative dance experience for children to consider the "doing, thinking and feeling aspects of the child's personality" (p. 53). It is possible to present situations which involve the child predominantly in one domain, but it will not exclude those other two domains.

Dance situations can be provided through which the child is able to focus upon and technically master the skills involved in an action, i.e., the child will be able to improve those performance skills which can help to make the dance experience enjoyable and meaningful. The focussing of particular aspects of an action or a series of actions can lead towards the mastery of psychomotor abilities, such as coordination, balance, flexibility, mobility, strength and precision.

Opportunities to select and organize movement material for dance ideas may allow the child to increase his movement awareness and vocabulary, thus providing valuable cognitive experiences through which the child can come to know the body of knowledge inherent in dance.

Experiences within the affective domain will allow for expression of those ideas and feelings which are important and relevant to the child. The selection of movement material to reflect particular ideas and feelings will highlight those dynamic elements of movement and may provide

an understanding for some children of issues which are part of human life.

Creative dance is a particularly valuable experience to the young child as it is concerned with understanding the body as an instrument of expression, involving the mastery of movement as a means of expression and communication. It is only after having experienced the broad, general "language" of dance that the child can "gradually grow towards the symbolic forms of representation that have established meanings by more experienced individuals" (Boorman, 1982b, p. 2). It is considered (Boorman, 1982; Hill, 1979; Redfern, 1978) that the creative dance form is the vehicle that provides the broadest possible context for learning about the symbols of dance, providing another way of perceiving and comprehending the world and eventually enabling the child to understand and take part in the established forms of dance.

Summary

The importance of the child's experience in all of the symbol systems has been stressed as each symbol system performs a "unique cognitive function" (Eisner, 1978, p. 6). It is the mastery of the specific "language" which is significant to the child's cognitive development; the capacity to understand, the ability to conceptualize and then to transform those concepts into a form for others to share and understand. It is also important that the child

experience all available symbol systems and respective scripts because, as Eisner (1978) points out, "incompetence in any one of those symbol systems exacts a price that exceeds beyond the borders of its own cognitive domain" (p. 6). The child who has not had the opportunity to work within a particular symbol system or script will never have the opportunity to share or express that way of knowing the world.

The Laban system of notation

At the first International Congress of Movement Notation, held in Israel, 1984, representatives from areas of study related to animal behaviour, anthropology, dance education, ethnology, physiotherapy, sociology and theatre came together to discuss the application and developments of selected notation systems. Those systems were Benesh Movement Notation, Labanotation and Eshkol Wachmann Movement Notation. The congress programme and the delegate response indicated that there had been considerable developments in the application of notation systems and that each notation system has a significant role to play in the study of human movement.

During the past five centuries many movement notation systems have been invented and implemented, mainly in the dance world where they have provided a record of the social dances and important choreographies of the day.

To the present day there is evidence of 124 notation systems, 53 of which have been identified as having made a significant contribution to the recording of movement, particularly in the area of dance (Hutchinson Guest, 1984). Most references to a dance notation system are contained within the literature about dance. It is only recently that any texts have been devoted entirely to the theory and application of a notation system or systems.

Most of the earlier notation systems, and indeed many of the more recent systems, have not spread far beyond the circle of persons directly concerned, i.e., the dancers and teachers, working with the inventor who was usually both choreographer and repetiteur of the dances. Music notation, which has been in general use by educated musicians for some time, has provided an opportunity to exchange ideas about music and encouraged experimentation with melodic and rhythmic structure. In contrast, very few choreographers recorded their work and those early dance notation systems in use afforded limited possibilities for dance innovation. As Chilkovsky Nahumck (1976) states, the notation systems "tended only to affirm, define and codify the socially acceptable dance behaviour of the feudal elite" (p. 32).

Even later, throughout the nineteenth and early twentieth centuries, information regarding many of the ballets was available through the memories of choreographers and dancers. Any scores which did exist for any of the

major works were simply aids to memory as the choreographer or repetiteur would already know the work. This has resulted in a lack of artifacts which can be studied and reconstructed. Redfern (1983) indicates that the lack of an adequate notation system "until well into the twentieth century, though several ingenious experiments had been tried, some of which provided inspiration for later innovators" (p. 16) may have contributed also to the paucity of information concerning dance works.

From the survey of the development of dance notation systems it has been found that notation systems fall into certain categories (Hutchinson Guest, 1984; White, 1977). These categories have been formulated according to the type of signs and symbols selected and the processes by which the signs and symbols are used to record the movement. The categories, falling into eight clear classifications, have been specified as follows: Letters, Words, Pictures, Track, Music, Stick Figure, Mathematical and Abstract. There appears to be no chronological patterning to the introduction or development of a particular category, the choice of symbols and method of presentation reflecting the needs of the inventor.

The traditional tools for recording movement - letter, abbreviations, word notes, stick figure drawings, photographs and more recently films and video - have left much to be desired. Schurman and Leigh Clark (1972) state:

> Because of their very nature they can do only one thing describe the design the body makes in space. In other words, they stop the action. Word notes are at best a clumsy translation of lyric expression into pedestrian prose. Such tools therefore cannot describe the elements of speed, duration, accent, flow of energy, and so forth, which are such an important part of all movement. (p. vii).

Even though many notation systems were employed for a very short time and by few people, they have made some contribution to the history and study of dance and as Hutchinson Guest (1984) states:

> A historical survey of the development of dance notation systems in the western world reveals incidentally the progression in the development of dance, physically and socially, and the attitude toward the material of dance itself. (p. 42).

The writings of Goodman (1966) and Sirridge (1978), among others, have discussed the value of notation as being beyond the practical requirements of recording dances. In the last decade choreographers, dancers and teachers have recognized a movement notation system as making a valuable contribution to their work in dance and have identified in particular the Laban system of notation. Cohen (1960) cites that Lland used the Laban system of notation to record his own roles in ballets; Venable (1960) considered that the "analytical skills developed by notation" helped her in rehearsals (p. 44); Reber (1976) working in folkloric and

historic dance found that this notation system was able to "represent every movement unequivocally in a graphic way" (p. 55); Backer (1976) employed Labanotation in the preparation of a book with Wendy Hilton on court and theatrical dances of the reign of Louis XIV, the notation system proving "itself invaluable in clarifying and describing her conclusions about the dance movement" (p. 74); Challet-Haas (1976) investigated the structure of classical ballet technique and to illustrate the progress of analysis considered that Laban's Kinetography was "the ideal tool" (p. 76); and, Drabecka (1976), in reconstructing and comparing the basic step of the galliard, found that "in transcribing the movement into graphical Laban's notation made the analysis and comparison possible" (p. 65).

Today, a notation system is required to provide more than a shorthand or an aid to memory for the choreographer or repetiteur. It is considered more than a heuristic device or tool for documentation. Notation is a means of capturing and transferring onto paper by means of symbols the expression, the sense and purpose of movement. The score becomes a record and a visual aid which can facilitate the transposition, comprehension and composition of movement ideas and can provide an authoriative identification of a dance work. A score should contain those features which any performance of that work must exhibit in order to be an authentic instance of the work. Cohen (1982) considers the

score to be the "designator of those constituent properties that are necessary to any realization of the particular work" (p. 149). Today, the score is seen to provide not only a means by which a dance can be reconstructed, but also through which the content and structure of the work can be studied and analyzed. Youngerman (1984) states:

> Furthermore, they (notation scores) can provide data, in an unusually revealing form, for research on a variety of topics, including the exploration of the concept of style, of the ways in which movement can be conceptualized, and of the bases for aesthetic evaluations. (p. 101).

The function of notation has moved away from a total use as an aid to memory in the reconstruction of dance works and has emerged as a tool for the study and consideration of dance, as Redfern (1978) outlines below:

> not only as a tool for recording any form of dance, but as a means too of learning to think in terms of movement and thus to compose dances other than by improvisation or spontaneous response to a stimulus ... (p. 10).

Notation can be incorporated into the creative process so that the choreographer can view a composition at any time and does not need to rely entirely upon memory. Copeland and Cohen (1983) state that the "advent of a usable choreographic notation would encourage the development of an art of greater subtlety, complexity and originality" (p. 26).

One of the important functions of a notation system is to provide an objective record of movement and, as Causley (1969) explains, "a common denominator for thinking and communication, independent of any theory, style or technique: in fact a universal language" (p. 13). It is considered that the use of a notation system in the study of dance can lead towards aesthetic enquiry and the careful study of dance scores contributes to the understanding of compositions as compositions. Ullmann (1976) explains that knowledge about dance can be acquired through the careful study of a score or kinetogram:

> The interaction of the spatial pattern with the rhythm of steps and gestures, gives certain characteristics to a movement sequence, the nature of which is usefully studied with the help of a kinetogram. (p. 20).

The particular demands made upon a notation system to record dance for future reconstruction and the increasing demands made upon it to provide for a means to analyze and talk about movement has often meant that many notation systems have fallen into disuse. A basic requirement is that the visible actions which are part of a symbolic system of dance can be transmitted through corresponding symbols of the notation script. Further essential features are that the symbols are capable of modification so that fine detail of movement can be recorded and that either general or

specific statements about movement can be presented in an "economical and legible form" (Hutchinson 1970, p. 1).

The foundations of a notation system appear to rest upon a comprehensive and universal analysis of movement. The selected script, the design of the symbols and their orthography, provide a means by which movement can be considered and recorded accurately and legibly. The script is based upon a set of rules which correspond and represent the motor principles of the body as they occur in space and time, allowing for modification as the contrasts and nuances of movement patterns occur (Chilkovsky Nahumck, 1976; Hutchinson Guest, 1984; Lange, 1980; Ullmann, 1976).

The Laban system of notation (called Labanotation and Kinetography Laban), invented by Rudolf Laban (1879-1958), "triggered off new ways of seeing the human body as an agent of symbolism" (Chilkovsky Nahumck, 1976, p. 32). The Laban system originated as a result of a "much wider search for an understanding of the principles of movement, of the sources of movement expression, and the value of dance to humanity" (Youngerman, 1984, p. 105). Laban (1879-1958) developed his system at the same time as his work as a choreographer and teacher. In the same way that a particular word represents a specific part of the spoken language, the movement notation, Labanotation, is considered a movement script which is capable of representing specific aspects of movement. Lange (1985) identifies Laban's notation as "a

movement script which secures the recording of movement progression" and considers the script to be constructed of "a well thought out basic set of symbols" (p. 12, 13). Laban devised the symbols of the system as visual representations of the equivalent movement patterns and through particular modifications the properties of movement, such as spatial and temporal elements, could be recognized and recorded. The system deals with the description of the structure of movement. The shape of the basic symbol indicates action or direction, the shading of symbol refers to the level of movement and the relative length of the symbol shows the duration of the action. The use of presigns on the open staff or the placement of the symbols on the three line staff indicates which body part is moving. The staff is read vertically revealing succession in time; reading the staff horizontally reveals simultaneity of actions or body parts. Thus direction, level and timing of action are captured in one symbol.

The orthography of the system is based upon logically organized characteristics which correspond to the motor principles of the body. Laban (1956) considered the success of his system after twenty-eight years to rest upon these "underlying principles of the system" which consider and reflect the movement capacities of the body and the "language" of movement (p. 1). Youngerman (1984) emphasizes these claims in the following statement:

> Sequencing of movement, the distribution of body weight, the configuration of movement in the body, the relationship between movers, and the orientation of the whole within the performing space can be readily grasped. (p. 106).

Laban provided an impressive scheme of analysis and description which "offers us an elaborate and intriguing example of the process that has come to be called concept formation" (Goodman, 1966, p. 214). Laban introduced the system in 1928 in the first booklet of a series called "Schrifttanz" (Script Dance) which explained the methods and orthography of the system. In later writings (1956), Laban explained in detail the origins and basic principles of the system upon which many followers, notably Hutchinson Guest and Knust, were able to develop the work into the present system.

Labanotation is considered to be a valid and reliable means of recording movement, based upon an analysis which is logically structured according to the functions of the human body which take place in space and time. The process of recording movement on paper involves the conversion of space, time, energy, parts of the body and relationships into symbols which can be read and reconstructed into movement. Labanotation consists of an alphabet of abstract symbols designed to reflect the movements they represent and which fall into categories, each member of a category being freely exchanged for one another without any syntactical

effect. The symbols found in these categories can be modified and extended as the complexity and subtlety of the movement demands. A movement or a sequence of movements is depicted on a graph and condensed on paper into a relatively small space which can be seen at a glance. Laban (1956) said of his choice of abstract symbols:

> ... the motion characters of the script are compounded according to simple orthographical considerations which we have learned to appreciate in the long experience of our experimental notation activity. (p. 20).

A detailed notation script is required for any particular analytical investigation and it is considered that Labanotation provides a means by which movement and dance can be recorded for study and examination (Goodman, 1966; Lange, 1985). In order to do this a notational scheme must fulfill certain theoretical requirements and Goodman (1966) considered that Labanotation met the necessary requirements in that the system "consists of characters which combine to form others", and each character "comprises of members which may be freely exchanged for one another without any syntactical effect" (p. 162). In this way the symbology and the organization of the script does allow for the description and recording of movement patterns which can be transmitted and communicated to others.

The Laban system of notation offers three kinds of description: Motif Description, Effort-Shape Description and

Structured Description. Motif Description provides a general statement about movement, pinpointing the motivation of the movement, its idea or intention. The Motif Description may remain very general or may become increasingly detailed until eventually it is a fully Structured Description, providing a precise description of the elements of movement defined in measurable terms. Effort-Shape Description provides a description of movement in terms of quality and expression, the symbols representing the pattern of movement which occur as the flow of energy within the body changes. The development of the different means of description together with an alphabet of symbols and logical rules "have facilitated not only the expanding choreographic innovations, but also the retrieval of idiomatic elements in any dance structure" (Chilkovsky Nahumck, 1976, p. 33).

The Applications of the Laban system of notation

There is much evidence of the value of Labanotation in the professional theatre where the score has provided both a means of recording and reconstructing dance works. Such scores, like music scores, are also available to the dance student and provide a means of studying dance. Hutchinson Guest (1984) has indicated that "through notated scores dancers and dance scholars can become acquainted with choreographic works and derive greater enjoyment and benefit from seeing performances of them" (p. 4).

Recently, significant steps to apply a notation system have been made in the area of dance education with students of all ages (Chilkovsky, 1980; Van Zile, 1984). The aim is that through the use of notation the student will develop an awareness of spatial, temporal and dynamic elements of movement and increase his knowledge and understanding of movement and dance. Notation is seen to play an important part in the understanding of movement, assisting in the exploration of movement possibilities and providing the students with a means to codify dance experiences.

Ullmann (1976) and Redfern (1978), amongst others, have recognized the value of this system of notation as a means of learning to think about movement. However, very little research exists which supports the experiences and statements to be found in the literature. Teachers have suggested that it should be included in the dance activities experienced by both children and adults in an educational or professional setting where it can be used to explain, consider and comprehend the movement content of dances. Advocates of various forms of dance and dance notation have long asserted the use of notation, and in particular Labanotation, as a valuable aid in the learning of dance. Preston-Dunlop (1969) reported the successful use of notation in movement study. Schurman and Leigh Clark (1972) used notation in the teaching of modern dance technique.

Hutchinson (1955) used notation successfully in the teaching of ballet and composition.

It has been stated that notation should be considered an integral component of learning in all aspects of the art of dance and many dance educators have described its uses as a practical and theoretical tool of learning to think and talk about dance (Redfern, 1978). Topaz (1976) identified Labanotation as a 'true language' that is a logical system which allows one to think in terms of movement and communicate dance" (p. 5).

The logicality and flexibility of the system are seen to offer immense opportunities to the teaching of movement and dance, allowing for the general and specific statements about a movement situation. Motif Description has been advocated as the kind of description and means of recording which should be used by the young child or beginner (Hutchinson Guest, 1983; Preston-Dunlop, 1967), as it gives the outline of the movement, its motivation, without describing in detail how the actions are to be performed. Preston-Dunlop (1967) described the use of Motif Description as follows:

> The interpretation of motif writing (description) is left to the reader, so that it is a perfect vehicle for describing movement activities where the creative invention of the mover is of prime importance, as is the case in educational work. (preface).

Hutchinson Guest (1984) has identified four significant roles that notation has to play in dance education: firstly, that it "sharpens the eye for movement observation and develops understanding of the structure of movements being learned," secondly, that notation provided a "visual aid:" thirdly, that it serves as a "memory aid:" and, fourthly, notation "provides access to materials otherwise unattainable" (p. 159).

In this way the teacher of dance is provided with an additional tool. The child can be introduced to dance through a practical exploration of the dance content using notation symbols. The symbols can be used to introduce, clarify and explain the movement content and as Hutchinson Guest (1984) states:

> ... children are introduced to the raw material of dance, the main directions, parts of the body, time values, parts of the room, basic forms of relating to one another, and so on - all of these being applied to the creative exploration of dance. At the time each type of movement is explored, experienced physically and explained verbally, the notation symbol is also introduced, thus providing an additional visual aid to understanding and memorising. (p. 160).

Children will come to recognize a movement pattern through the symbols and the reading of a score will make available further movement and dance material. This medium also offers a record of an experience and a further means of sharing ideas with others. Hutchinson Guest (1984) suggests

that children "at about the four or five year level" should be introduced to the basic symbols as movement concepts are introduced and explored, stating that this procedure "clarifies differences and develops the basis of dance literacy without interfering with the usual physical activity of the dance class" (p. 161).

Chilkovsky (1954) also made notation an integral part of the teaching of dance at the Philadelphia Dance Academy and in consequence published a series of books which involved the reading and writing of dance vocabulary and skills in Labanotation for young children. The books were designed to provide "practice materials for the student as a means of improving technical skill enlarging vocabulary" (p. 2). For the teacher it provided an opportunity to encourage students to practise at home giving specific assignments from the texts. Chilkovsky Nahumck planned the lessons that included reading and study for notation experience, analyzing a theme or phrase as part of a composition task, or performing a dance skill previously rehearsed from the score.

It has been found that children enjoy the challenge of using and interpreting the notated patterns and learn more quickly from reading the symbols. Hutchinson Guest (1984) quotes the work of Rose Lorenz who "found that children mastered assemblés and sissones more quickly from reading

the symbols; leaving the ground from one foot or two and the appropriate landing were visually so obvious" (p. 161).

Several teachers (Chilkovsky Nahumck, 1980; Hutchinson Guest, 1984) have found that children are able to grasp Labanotation rapidly, recognizing the symbols and applying the principles of the system in the writing and reading of scores. Hutchinson Guest (1984) quotes the example of the Dansnotators (11 - 12 year olds) who "read and learned the first movement of Balanchine's Symphony in C from the Labanotation score". She also made the observation that this experience "vastly increased their understanding, appreciation and enjoyment of the work" (p. 135).

Suggestions have been made regarding the design of the dance curriculum to include experiences whereby children can acquire notational skills, identified as the ability to use the written language of dance. Chilkovsky Nahumck (1980) also proposes that:

> Labanotation should be introduced into the dance class as it is needed. It is learned, not as a separate subject, but as a tool or aid for non-verbal description and analysis of movement. (p. 23).

Summary

The first part of this chapter reviewed briefly the place of symbolic representation in children's learning and described the role of creative dance as a symbol system. The next two sections explained the features and place of

notation systems in the history of dance and discussed the particular role and application of the Laban system of notation in dance today.

If the notation can be learned and applied by people of different ages and if the application of a notation script within the dance experience provides a systematic means of identifying and investigating movement, then it seems reasonable to assume that the notation system may be learned and used by children and that it may assist in the children's understanding and awareness of dance materials. To the author's knowledge, no study has yet assessed the possibility of children learning and applying the Laban system of notation in a creative dance situation.

Chapter Three

Design of the Study

Introduction

This chapter outlines the design of the study. The description of the population and sample is followed by an outline of the procedures for developing the materials. The latter provides information relative to the establishment of student profiles, notation vocabulary, teaching programme, testing instruments, and the training of scorers. That section is followed by the methods and procedures used in the treatment and testing programmes. A summary statement then reviews the content of Chapter III.

Sample

The population, for this study, consisted of those children between the ages of 9 years 0 months and 14 years 0 months who had received three consecutive years of creative dance with the Alberta Children's Creative Dance Theatre (A.C.C.D.T.) (Appendix 1). This population was identified for two reasons: three consecutive years of creative dance had familiarized the children with Laban's body, time, space, effort and relationship themes inherent in the teaching and testing programme; and, the age span provided a sufficiently large population from which a sample could be derived.

A population of 33 children was identified by the researcher through consultation with the director of the A.C.C.D.T. Permission from the director was obtained to contact the parents or guardians of this population. Contact was made through a letter and a sample of 16 children was selected on the basis of affirmative responses.

The sample, 15 girls and 1 boy, were between the ages of 9 years 2 months and 13 years 9 months. Over the course of the study some children were not able to attend all of the teaching and testing sessions due to illness or family commitments. Nine of the sixteen children completed all sessions and this group, subsequently, became the final sample.

Materials

Materials developed for this study were student profiles, the content of the teaching programme, a notation vocabulary, testing instruments, scorers, and individual test units.

Student Profile

For the purpose of this study, a profile of each child was made in order to ascertain what factors, if any, may have contributed to their interest and ability in the notation experience.

The student profile ultimately included (a) age, (b) I.Q. scores, (c) background experience in related arts activities, (d) preferences for action families, (e) skill

in creative dance, (f) ability in notation, and (g) attitude towards notation.

The children were asked to give their birthdate at the commencement of the programme in June, 1985. The years and months were calculated to the first day of the treatment programme which established their age for the student profile.

Background experience in related arts activities was determined on the first day of the treatment programme. This was identified in the form of a questionnaire (Appendix 2) and administered to each child.

Preference for action families was determined by questionnaire (Appendix 2). Based upon the movement analysis of Laban (1947, 1975), which identifies the elements of the body, time, space, effort and relationship, Boorman (1973) identified 10 action families. These 10 action families had been expanded in the work of the A.C.C.D.T. to 11 action families (Appendix 2). These 11 action families were known to the sample of children involved in this study, having been the foundation of their creative dance experience. The children were asked to identify which three action families they preferred and which three they most disliked to perform. Time was allocated at the beginning of the first teaching session to gather this information.

Skill in creative dance was determined by three external judges (Appendix 3), who had prior knowledge of the children's work in creative dance, and by the researcher. Each judge was asked to place in rank order, 1 through 16, their perception of the children's skill in creative dance according to the criteria for originality and intensity. Originality was described as the number of different ways the child was perceived to handle movement material - breadth of skill. Intensity was described as the perceived ability of the child to bring meaning to movement presented - depth of skill (Appendix 4).

Ability in notation was assessed through the designed testing instrument administered individually to each child on four occasions (see section on testing instrument, p. 46). Each child's achievement was tabulated and considered separately and in relation to the established notation vocabulary and selected principles of the notation system. This method was implemented in order to ascertain the relevance of the notation vocabulary and treatment programme to these children.

Attitude to notation was collected by questionnaire (Appendix 5) at the conclusion of the third testing session. Ten questions were designed in an indirect question format. This format was employed in order to engender frank and open responses. The researcher outlined the purposes and intentions of the questionnaire to the children, which

was to generate information for building future notation experiences for other children. This would include information as to their likes and dislikes about notation and other information they chose to share. All of the questions were read to the children as a group. The questionnaire was answered individually with time being allowed for its completion by all children.

Notation Vocabulary

The notation vocabulary was established by the researcher in conjunction with advice and input from three external resources, Hutchinson Guest, Kane and Venable (Appendix 6). An initial vocabulary was built derived from the writings of Preston-Dunlop (1967, 1969) and Hutchinson Guest (1954, 1970). This was cross-referenced with the writings of Boorman (1969, 1971, 1982). From this 11 action families were identified which subdivided into 25 basic action units (Appendix 7). Drawing further upon the writings of Hutchinson Guest (1984), Knust (1979), and Lange (1980), the notation vocabulary was extended to include four relationship units, 33 spatial units, and 10 principle units (Appendix 7). The total of units covered by the initial vocabulary was 72. This vocabulary was then submitted to the three external resources for reaction and recommendations (Appendix 8).

Following the recommendations, the notation vocabulary was modified and consisted of 77 units. This became the

notation vocabulary (Appendix 9) used in the treatment programme and the testing instrument.

Teaching Programme

The teaching programme (Appendix 10) was developed to cover the content of creative dance and notation built into the notation vocabulary and the several methods inherent in the testing instrument.

Testing Instrument

The testing instruments were designed to probe three areas of notation: (1) recognition - the ability to recognize symbols and principles of notation, (2) ordering and sequencing - the ability to order and sequence movement material using the symbols and principles of notation, and (3) comprehension - the ability to give meaning to the actions and symbols used in a notation score.

In order to test each of these three areas, two written tests and one action test were designed.

One written test was designed to examine the children's ability to read the written notation information and give in writing a description of the notation. This became the symbol-to-written response. The action test was designed to examine the children's ability to read a notation symbol or score and perform that script. This became the symbol-to-action response. The other written test was designed to examine the children's ability to watch an action being performed or compose and record it in written symbol

notation. This became the action-to-symbol response. The total testing instrument, therefore, contained nine parts (Table 1).

The testing instrument and an example of the contents of a test were also submitted to the external referees for recommendation and comment (Appendix 11). The external referees confirmed that the tests had the potential to reflect the children's ability to use the notation system, but no further tests for reliability or validity were established. Subsequently, the testing instrument was implemented in the programme.

Scorers

The scorers were established in order that the tests which required individual demonstration from the children, i.e. symbol-to-action responses, could be facilitated. Two scorers (Appendix 12) were adults familiar with creative dance, but not known to the children, were present throughout each of the testing sessions.

Individual Test Units

Individual test units, covering the same notation vocabulary and principles, were designed for each of the children involved in the nine subtests of the testing programme. The nine subtests of the testing session, i.e., test one through nine (Appendix 13), were contained in coded envelopes.

Table 1

Testing Instrument Notation Areas and Methods of Response

Notation Areas	Methods of Response
Recognition	1. Symbol-to-written response
	2. Symbol-to-action response
	3. Action-to-symbol response
Ordering and Sequencing	4. Symbol-to-written response
	5. Symbol-to-action response
	6. Action-to-symbol response
Comprehension	7. Symbol-to-written response
	8. Symbol-to-action response
	9. Action-to-symbol response

Methods and Procedures

The teaching and testing programmes took place in two phases. Phase one occurred from 5:00 p.m. to 6:30 p.m. on Monday, Wednesday and Friday of three consecutive weeks, June 3 to June 21, 1985. On Monday and Wednesday of each week the children were involved in the teaching programme and on each Friday, in the testing programme. The second phase occurred on September 20, 1985 from 5:00 p.m. to 6:30 p.m. and consisted of the final testing session. The total instruction in creative dance and notation was nine hours and the total testing in notation, six hours.

Throughout phase one and phase two six children were present for all sessions. In week three the test programme was administered to three children out of the normal testing time. The final test programme was administered to three children out of the normal testing time (Table 2).

The total of nine children included in the final sample was arrived at when data from the tests taken outside of the normal testing time was added to those six children present for all sessions.

Teaching Programme

The teaching programme sessions commenced when the children arrived independently at the Education Gymnasium of the University of Alberta, changed into appropriate clothing and worked with the researcher on introductory creative

Table 2

Attendance Record for All Sessions

	Phase One									Phase Two
	M	W	F	M	W	F	M	W	F	F
1	/	/	A	/	/	/	/	/	/	A
2	/	/	/	/	/	/	/	/	/	A
3	/	/	/	/	/	/	/	/	/	/
4	/	/	/	/	/	/	/	/	/	/
5	/	/	A	/	/	/	/	/	/	/
6	/	/	A	/	/	/	/	/	/	/
7	/	/	/	/	/	/	/	/	/	/
8	/	/	A	/	/	/	/	/	/	/
9	/	/	/	/	/	A	/	/	/	/
10	/	/	A	/	/	/	/	/	/	A
11	A	A	A	/	/	/	/	/	/	/
12	/	/	/	/	A	A	A	A	/	A
13	/	/	A	/	A	A	A	A	A	A
14	/	/	/	/	/	/	/	/	/	/
15	/	/	/	/	/	/	/	/	/	/
16	A	A	A	/	/	/	/	/	/	/

Note:

Maximum attendance = 10

/ indicates attendance

A indicates absence

dance activities. These introductory activities familiarized the children with each other and the environment which included audio-visual equipment and an observer-technician. Following the introductory activities, which lasted approximately five minutes, the creative dance and notation sessions began.

In each of the teaching sessions the children were involved in two ways of working with creative dance and notation. These were symbol-to-action experiences and action-to-symbol experiences.

To achieve symbol-to-action experiences the reading of notation material was required. Methods employed to achieve this were reading notation written on the chalkboard or large charts, reading notation from individual cards which were placed about the gymnasium or held by the teacher, reading and ordering cut-out notation symbols, writing and reading pencil and paper scores.

The processes involved in symbol-to-action experiences were as follows: individual symbols, or scores, were read by the children and the movement possibilities were discussed or danced; the framework of a dance score was presented by the teacher and the children added detail to the score and then danced the score; a score or a section of a score was read and danced; the children read and performed sequences and dances composed by other children; the

children danced their own notated sequences and dances for each other.

In action-to-symbol experiences the following occurred: teacher selected actions, sequences or compositions were explored practically by the children and then notated or read; a movement theme or idea for a dance was introduced to the children who then composed and notated their own dance; a section of a dance or a complete dance, composed and taught by the teacher, was danced and then notated by the children. To achieve these action-to-symbol experiences the composing and notating of movement experiences was required. Methods employed to achieve this were the ordering of cut-out symbols on the floor, recording by pencil on paper, discussion and recording the children's responses on the chalkboard.

Throughout the treatment sessions these experiences provided the children with opportunities to work as a group, with partners and individually. The teaching progression throughout was accumulative, new symbols and principles being introduced and supplementing previously presented materials (Appendix 10). The treatment sessions were adjusted, over the period of time, to the learning rates, motivation and interests of the children. Throughout the progression of the treatment sessions the children were encouraged to extend and bring additional material to the area, if they so wished.

Testing Programme

The testing programme commenced when the children had arrived independently at the Education Gymnasium, changed into the appropriate clothing and each child had been given a coded envelope containing nine subtests (Appendix 13). The envelope was coded differently each session. The code was established by an external observer in order that researcher bias would be monitored.

The children then gathered together for instructions given by the teacher. Each envelope contained nine tests which involved writing about the notation, writing in symbols and reading and dancing from scores. Each child was to work individually and find his own space in the gymnasium to do this. The instructions for each test were to be read together and time would then be allowed to complete the test (Table 3). At the conclusion of each testing time the children were to mark either "finished" or "time ran out" on each test card (Appendix 13).

Throughout the testing programme video recordings were made of the children providing information regarding a child's responses and participation during the programme. This was not a continuous recording of all the children, but random selection by the observer.

At the conclusion of each testing session the children gave their coded envelopes to the teacher and left individually.

Table 3

Time Allocation for the Testing Instrument

Test	Area	Response	Week 1 Time Allocation	Week 2 Time Allocation	Week 3 Time Allocation	Week 4 Time Allocation
1	R	S - w	5 minutes to write about the symbols	"	"	"
2	R	s - a	5 minutes to practice then perform	"	"	"
3	R	a - s	Each symbol performed 3 times - 2 min. interval between each performance	"	"	"
4	O + S	s - w	5 minutes to write about the sequence	"	"	"
5	O + S	s - a	5 minutes to practice then perform	"	"	"
6	O + S	a - s	Sequence performed 3 times - 2 mins. between each performance	"	"	"
7	C	s - w	5 minutes to write about the sequence		Music played 3 times, 5 mins. to write about sequence	
8	C	s - a	5 minutes to practise, then perform		With music, 5 mins. to practice, then perform	
9	C	a - s	10 minutes to compose and notate		Music played 3 times, 10 mins. with music to compose and notate	

R = Recognition Tests
O+S = Ordering and Sequencing Tests
C = Comprehension Tests
s - w = symbol - written response
s - a = symbol - action response
a - s = action - written symbol response

Prior to the commencement of each testing session, the scorers met for 30 minutes to discuss the test materials and procedures. Each scorer received test sheets for each child, the written interpretation of the notated materials and the allocation of marks.

The scorers were also given the following instructions: the children would be sent individually by an external observer to the scorer; the children would be sent to a different scorer for each test; the scorer would watch the child perform the individual actions or sequence of actions; the child could repeat an action or sequence of actions; and, the scorer would conclude the test by saying "thank you" with no mention being made of the performance presented by the child.

Analysis of Material

1. A profile of each child was constructed, identifying the child's background experience in related areas and the child's ability to use the notation system.

2. The children's participation and response to the teaching programme and testing sessions were ascertained through the analysis of the final questionnaire and the videotape recordings.

3. The teaching programme and testing unit were considered and evaluated in relation to their effectiveness in presenting the notation system to children between the

ages of nine and fourteen years and their integration within the creative dance programme.

4. The selected notation vocabulary was considered in relation to those symbols and principles which were readily identified by the children and those symbols and principles which were more difficult for the children to remember and use in the writing and reading of scores. The results were recorded as percentage scores for the symbols and principles of the system.

5. The assessment of the child's ability to use the notation system was identified through the nine subtests administered in the testing instrument. The tests were scored as follows:

i) each subtest was scored on a scale of 0 - 5 points. Therefore, if all the items in a section of a test were identified correctly, the maximum of 5 points could be attained. The maximum points for each test was 15.

ii) the individual and total scores of the nine subtests for each testing session were recorded for each individual.

Summary

In this chapter a description of the procedures followed in the study was presented. The sample was described and the design and implementation of the materials in the teaching programme and the testing instrument were

explained. The chapter concluded with a description of the method of analysis used to consider the findings in this study.

Chapter Four

Analysis of Teaching Programme

Introduction

The purpose of this chapter is to discuss the teaching programme created to help the children learn the selected symbols and principles of the notation system within a creative dance experience. The design of the materials and processes used in the teaching of the notational skills is described with reference to the findings in the video recording and final questionnaire. The chapter concludes with a summary of major findings relating to the teaching programme.

Discussion

The content of the teaching programme (Appendix 10) was designed to provide experiences through which the children could learn and apply selected symbols and principles of the notation system. Teachers in the field of dance and notation (Chilkovsky Nahumck, 1980; Preston-Dunlop, 1969; Topaz, 1976; Van Zile, 1984) have advocated that notation be learned not as a separate subject, but as part of a dance lesson. In consequence, notational skills are acquired by using the notation system to write and read dances and only those symbols and principles are introduced which relate directly to the particular dance experience.

The teaching programme in this study included creative dance as a vehicle for the introduction and learning of the notation system, and endeavoured to reflect the aims and objectives of dance in education today.

Consequently, processes generally utilized in a creative dance situation, and ideas and materials appropriate to the age and experience of the children, were selected.

The dance curriculum is seen to be comprehensive in scope, drawing upon knowledge and experiences in the related areas of arts, sciences and humanities, and is designed to encourage and extend dance perception and performance. It is perceived as a multi-dimensional spiral involving processes of feeling, knowing, perceiving and performing and emphasizes the symbolic nature of movement expression. The curriculum may be visualized as a series of spirals; on the one hand, spiralling outwards reaching for breadth of knowledge and experience; and, on the other hand, spiralling upwards, aiming for the mastery of skills and reaching towards a depth of knowledge and specialization.

The dance experience is proposed as part of an aesthetic education and the aim of the dance curriculum is to provide a strong foundation in those basic skills, such as analytic, kinetic, perceptual, rhythmic and choreographic skills.

In the planning of a dance experience the understanding of the relationship between feeling, thinking and the resultant kinetic responses, and an awareness of the presence of symbolic and metaphoric elements in basic actions, such as extending, contracting, jumping, falling, and the combination of such basic actions within aerial and floor movements are fundamental to the breadth and depth of knowledge in dance. The dance becomes a physical, emotional and intellectual experience through which the child may shape the elements of movement into meaningful visual patterns.

The processes by which movements are shaped and formed into dance involve the exploration of a dance subject or associated ideas which can be used as stimuli for dances. The dance subject is chosen for its action possibilities and the scope it affords for movement development. Movement material is identified and clarified for the dance idea and finally organized into a finished composition. The sharing through performance of dances provides opportunities for developing critical faculties and for extending a personal range of ideas and movement selection.

The written language of dance is regarded as making a significant contribution to the dance curriculum, providing a tool for non-verbal description and analysis of dance. Van Zile (1984) stated that notation should be "considered an integral .. in fact, indispensable ... component of

learning in all aspects of the art of dance" (p. 21). It is seen as a means to study all aspects of human movement, specifically contributing and assisting in the development of skills for the composition of dance and the appraisal of dance works.

The materials and processes which constituted the teaching programme in this study provided the children with the following opportunities: to examine several dance ideas; to investigate movement possibilities; to create and share their own dances; and, to perform and examine dances composed by others. Notation, relating to a particular lesson emphasis, was integrated into each task and focussed attention upon a specific aspect of the dance experience. It became a means of identifying and clarifying action possibilities and structure of dances and was introduced at the relevant points in the lesson where materials or processes could be explored or emphasized. Activities such as: reading, from cards, wall-charts and scores; writing, using 'cut-out' symbols, chalkboards and paper and pencil, were implemented to encourage the children to memorize and record movement.

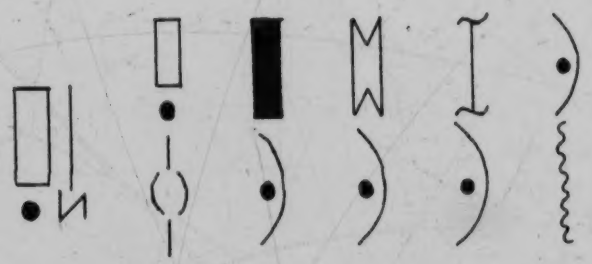
Observations

A lesson is designed to focus upon the acquisition of a particular skill or combination of skills; such as, kinetic, rhythmic, analytic or choreographic skills, which contribute towards the performing and creating of an idea in the

symbolic language of dance. The personal experience and interest of the child become the starting point for an idea for a dance whilst selections of a general idea of interest allowed the child to feel some sense of familiarity and involvement. In consequence, the dance subjects encompassed ideas, such as "Creatures of the night", "Sundown", "Tightrope", "The magic carpet", "A dangerous journey", and "The two detectives" in which the children were encouraged to explore and select movement material for a sequence or dance.

At the introduction of a dance idea the children explored physically selected movement possibilities. Materials from this exploration were later identified and clarified through the notation symbols and principles of the system. For instance, in the dance "Tightrope" introduced in lesson two of the programme, the children explored with the music individual actions of: 'balancing', 'falling' and 'wobbling'; the combinations of: balancing and wobbling whilst travelling; 'falling' leading into another action; balance holding a particular shape; and, the duration of the actions. The children were encouraged to extend the selected possibilities employing different combinations, resultant actions and timing. Ideas were discussed and the symbols to denote individual and combined actions were shown to the children by the teacher. The children described verbally particular actions they had included in their

explorations and these were notated on the chalkboard, such activities as:



Later, each child selected and organized actions and phrases into a dance. In the first instance, the dances were recorded in 'cut-out' symbols and then transferred onto paper. Figure 1 shows a notated dance containing: the combination of the actions of stepping and wobbling, and stepping and sinking; the resultant actions of jumping ending in a balance and falling into a turning action.

Through the dance exploration and the final recorded composition of the dance, the children were introduced to the new symbols of , , and , and the principle of simultaneous action. Previously introduced symbols, the principle of successive action and the principle of staff indication to denote the beginning and ending of a dance were used in addition by the children.

The observations reveal an involvement and excitement with the dance ideas and a focussed attention during exploration of movement possibilities and organization of

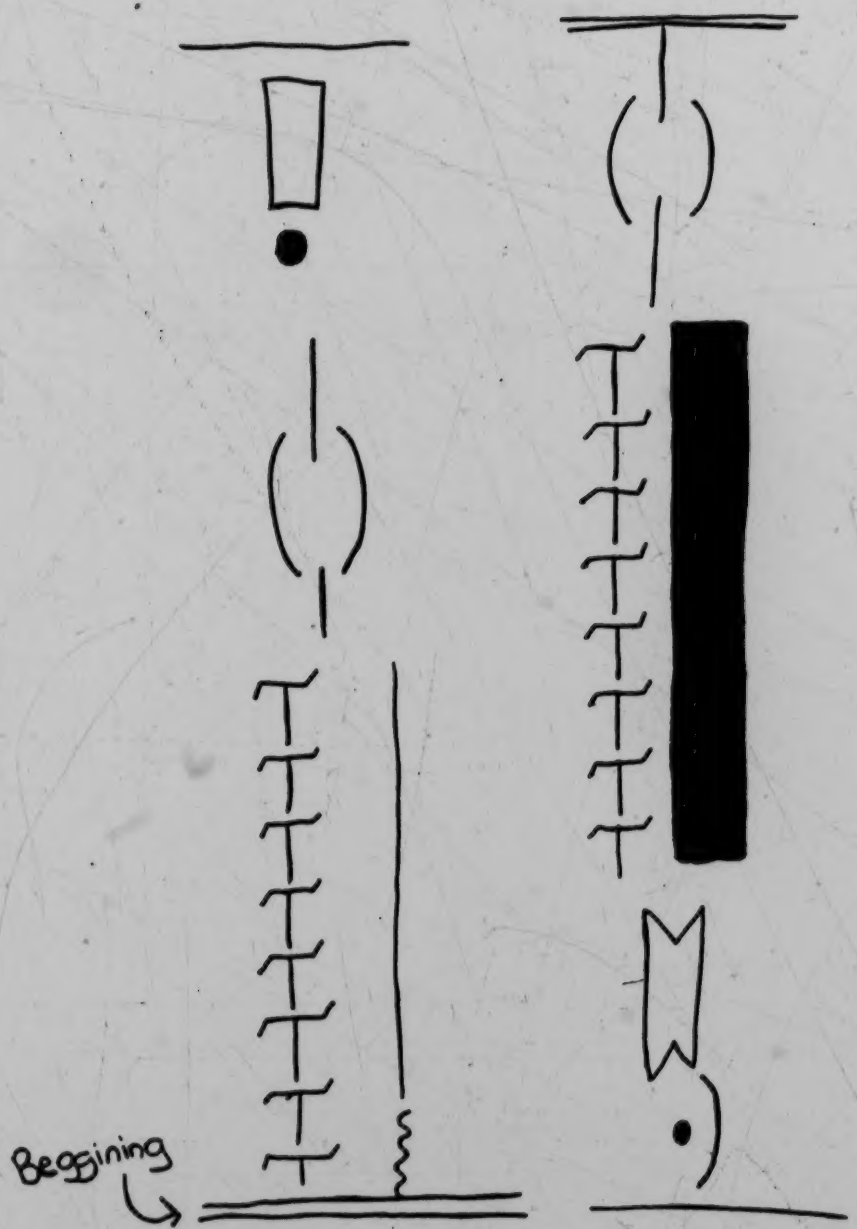


Figure 1. A child's example of a notated dance, titled 'Tightrope' (Lesson 2)

selected movements in the dances. The children were eager to recall the symbols encountered previously and the 'game' activities mainly used in the introductory part of a lesson seemed to make the process of learning fun and reinforced the material. One child commented that "Ann holding up the symbols" helped her to learn a symbol. The children were also absorbed in the activity of using symbols to explore and record their ideas and it appeared that the notation focussed attention upon these explorations and selections of movement material.

In response to the questions contained in the final questionnaire concerning the use of the notation system to read and write dances, the children replied positively, and one child further commented that "if you don't use the symbols some people just dance because the teacher told them to and they don't really know what their doing".

The enthusiasm and concentration in the practical exploration and selection of movement material may be attributed to the fact that the children are accustomed to this procedure. The children may have been motivated because the notation material was new to them and they were achieving success with the application of the symbols and principles of the system. Comments, such as "I must get it right so that I can keep my dance", revealed that the children were beginning to realize that the notation system could be useful and important to them and this may have

stimulated the children further to focus attention upon the activity.

The questionnaire required the children to consider if they would use the notation system in the future and the majority replied in the affirmative. Replies included "Yes, absolutely", "maybe", "Yes, I have already", and "Hopefully, I would like to learn things like, what to do with hands, legs, middle, head, etc."

Dance studies, based on movement themes, were presented to the children for further exploration and examination of dance materials. The sixteen movement themes, based on the work of Laban (1963) and found in his text 'Modern Educational Dance', explains the underlying theory of his teaching.

> Each of the basic movement themes represents a movement idea correponding to a stage in the progressive unfolding of the feel of movement in the growing child, and in later states to the development of his mental understanding of the principles involved (p. 28).

The studies in the programme were selected according to the children's age and experience in dance and application to the introduction of the notation system. Studies were titled 'Travelling' and 'Stopping', 'Travelling Dance Phrases', 'A Stepping Dance', 'A Direction Dance', 'Dancing Together', and 'Turning and Travelling' identified the particular area within a theme: the body in motion and

stillness, weight transference, combination and sequences of body actions and dancing with a partner. A study or a section of a study was composed and notated by the teacher, and, in consequence, the children experienced examples of both the arrangement and an accurate record of the movement material. In lesson two, the notated travelling phrases illustrating the use of different-sized pathways and stillness were reconstructed and performed by the children. Figure 2 contains examples of the travelling dance phrases.

Further studies provided situations both to perform patterns composed by the teacher and to create further sections of a study. For example, Figure 3 contains an example, given in lesson three, of the notated framework of the study 'Dancing Together'. The renamed dance 'Indecision' shows the additional sections notated by two children.

The video recording revealed that the children enjoyed the experiences of composing within a given framework. They met the challenge of reading and dancing the composed sections and were able to record the detail they added to the sections, plus their own composed phrases to the score. For instance, in Figure 3, the original score contained steps in the first four bars and the two children modified these steps so that they became up and down, sideways steps. Most children added such detail to the set step

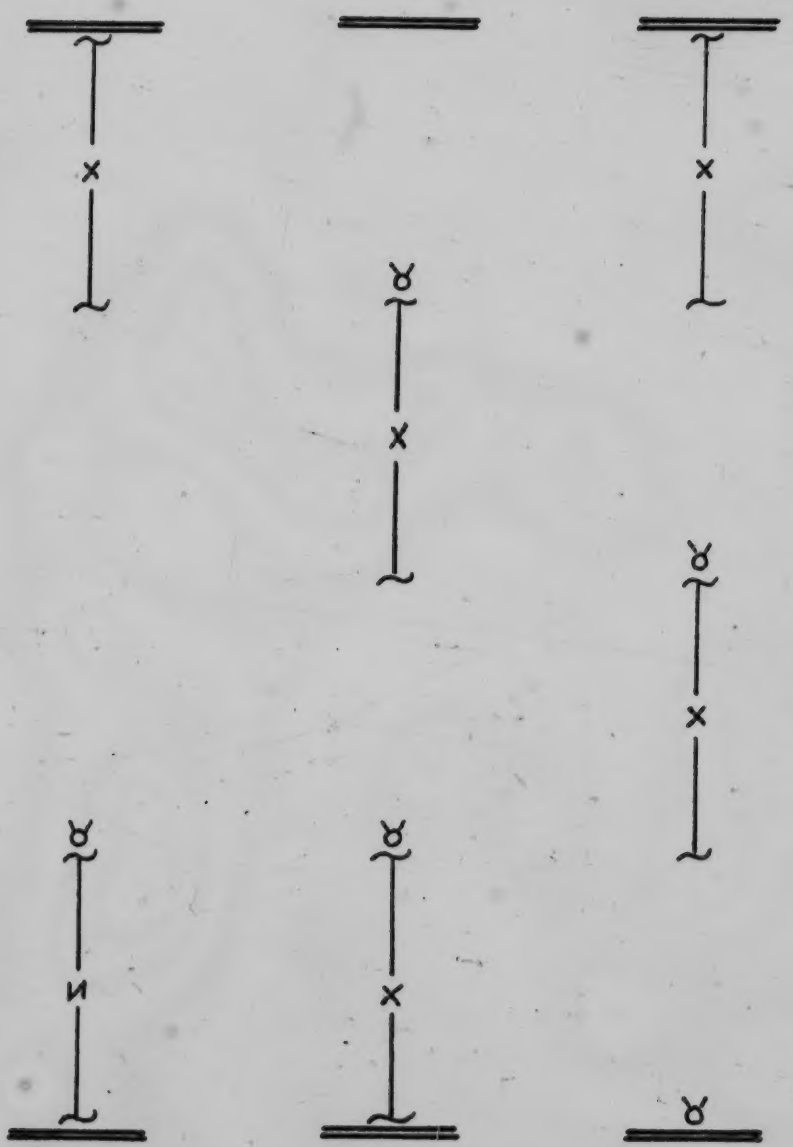


Figure 2. Examples of Travelling Dance Phrases (Lesson 2)

patterns, demonstrating that they were able to identify and record the detail they had added and that it was important to notate the information, for example, the dance shown in Figure 3. The ability to create patterns and recognize such detail may be due to previous experience in creative dance and the children's wish to record the detail may reflect their interest in the notation system.

This fact is supported in the statements made by the children in answer to the question concerning the usefulness of the written dance. The children's replies varied from "sometimes" to "quite useful" to "yes, very" and included comments such as, "cause it was easier to remember them (the dances) at a glance" and "because if you forget your dance you can go back".

However, when the children were asked if they liked to write down the dances the teacher taught, the replies "not really", "yes, sort of", "you see I only like writing down when we can add to it ourselves", and "I prefer to write down my own dances" indicated that the children preferred to notate their own compositions. This preference could be accounted for by the fact that children of this age generally do enjoy creating and arranging their own dances, that these children have had extensive experience in composing their own dances, and stated additionally that they liked coding their own dances.

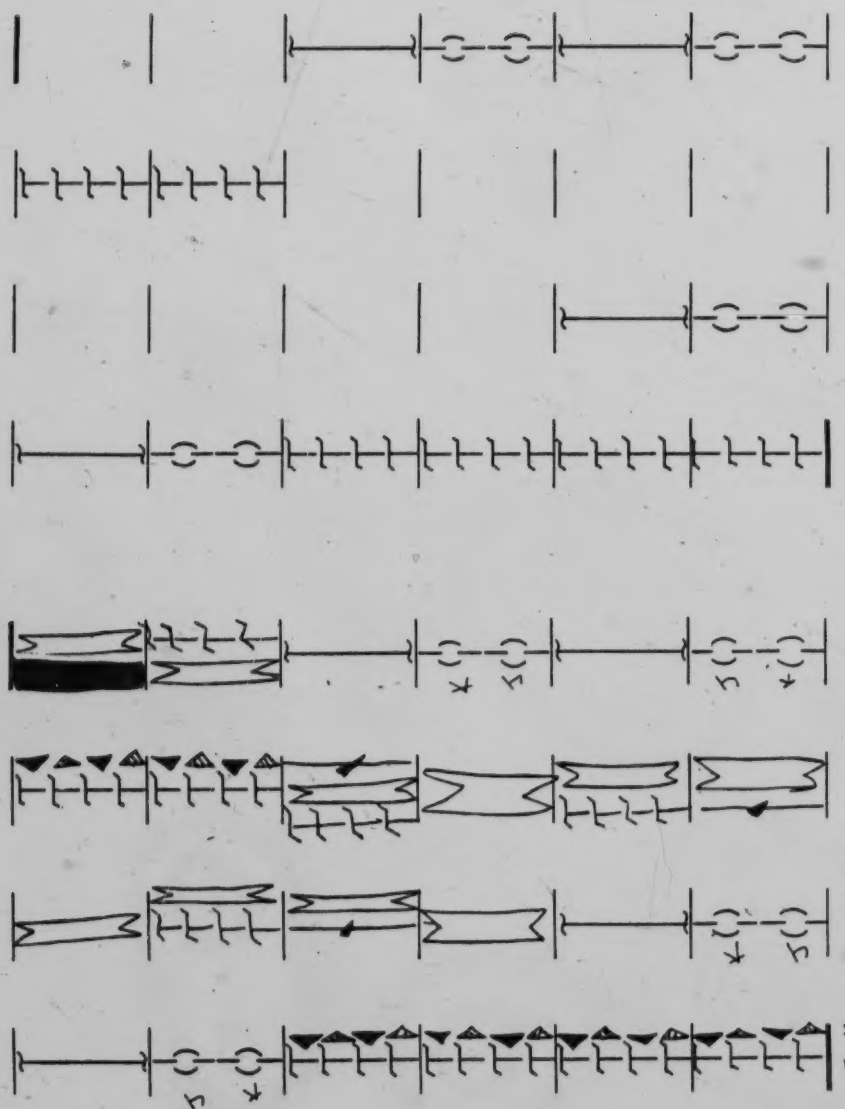
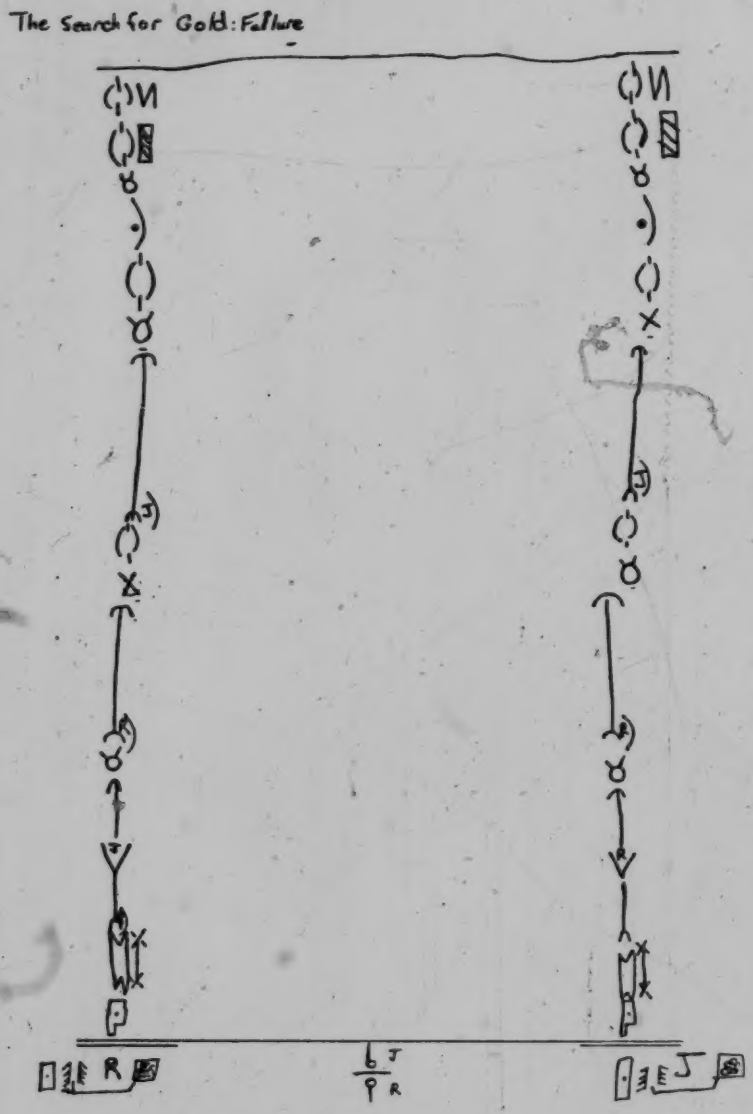


Figure 3. Example of Notated Framework of the Study 'Dancing Together', and the Additional Sections Notated by Two Children (Lesson 3)

The children were involved also in situations in which they created their own dances from a given theme. In one lesson, the children revised the indications for pathways and the different sizes of pathways. The subject of a journey was introduced and the teacher described some possibilities for dance ideas: "a journey with someone else, finding a new place, a secretive journey, and a strange journey". The children were then asked to listen to a piece of music and then to discuss with a partner the type of journey they would make. The video recording shows the children enthusiastically composing and dancing their own dances and then later writing down their compositions. The ideas ranged from a 'Journey in a jungle', 'Two friends exploring', 'The chase', 'Fame and Misfortune', and 'The Search for Gold: Failure'.

The task required that the teacher provide additional symbols for some groups; for instance, in Figure 4, two children composed the dance title 'The Search for Gold Failure', for which they required the information for the relationships of leading, approaching, facing, and hands supporting on the floor. The score indicates that the children were able to incorporate this information. This finding can be supported by further examples, revealing that the children were not prevented or inhibited in their compositions because they had learned only certain symbols



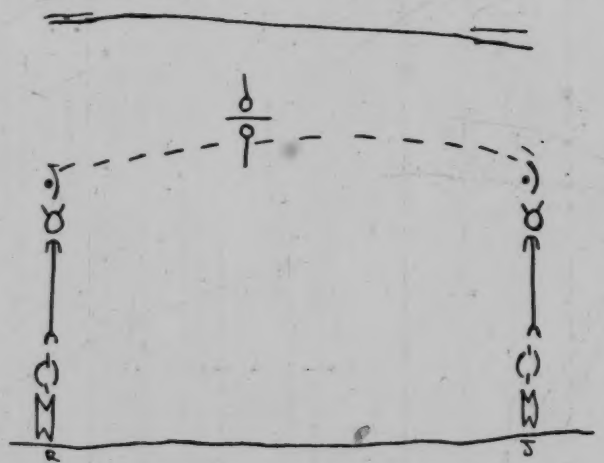


Figure 4.

Example of Dance, titled 'The Search for Gold: Failure', Composed and Notated by Two Children (Lesson 5)

to this point and that they were eager to discover how movements they had composed could be written. The video recording contains examples of the children asking for additional symbols, revealing in part that their dance skills were in advance of their notational skills. However, the fact that the children were able to incorporate the requested information in the recording of their dances does imply that the notation system did not hinder the expression of their ideas.

The questionnaire also supports the fact that the children enjoyed this experience, when they commented, for example, "that it helps me come up with new ideas" and "yes, its kind of fun". The questionnaire also reveals that the children found "the notation easy to learn and use", supporting the fact that the notation did not inhibit the children in their composing of dances. One child wrote that the notation was "extremely easy to learn", and a second child stated that "I think I picked it up fairly fast and I used it with ease". A third child explained that "I found the notation quite easy. But I think the reason is that our teacher explains very well. Every week she seems to go over the symbols we did the last weeks and will give us new ones if we ask. Once I've seen the symbols three or four times they're easy to remember".

An important part of the dance lesson is that the children perform their dances for each other so that ideas

and materials can be shared and discussed. In the situations where children worked together to compose a partner dance they had the opportunity to share and discuss ideas for the composition. It appeared that the notation added a further dimension through which to clarify ideas for each other. The video recording contains examples of the children in the composing and performing of a dance. During this process, the children would notate these ideas and there is great discussion about the exact movement content, timing and sequencing of the movements in the dance.

At various times the children were asked to read and dance someone else's sequence or dance, thus providing a further means through which ideas could be shared. The children seemed to enjoy reading each other's dances and checking if someone had danced their composition accurately.

In one instance, the children selected a given mood theme in which to compose and notate a dance. The themes included sadness, joy, fear, mischief and anger and the children notated partner dances on the several chalkboards provided in the gymnasium. One couple was asked to perform their dance for the rest of the class who, before seeing the dance, read the notated score. Afterwards, the class identified the action content and timing of the dance, one child commenting that the dance "was really clear because I'd read the notation as well".

Summary of the Findings

The importance of the dance curriculum and the introduction of notation within a creative dance experience for children was described in the first section of the chapter. In the next section the integration of the notation vocabulary and the creative dance experiences were discussed and the children's responses were described and analyzed.

The information contained in this chapter suggests that notation can be used within the creative dance lesson and that children are able to learn and apply the selected symbols and principles of the system through the different dance activities of performing, creating and viewing dance.

The information conveyed in this chapter reveals implications for the planning and design of a notation experience for children.

Chapter Five

Analysis of Notation Vocabulary and Testing Instrument

Introduction

The purpose of this chapter is to discuss two areas: the notation vocabulary and the testing instrument, both designed to investigate the use of motif description within creative dance experiences for children. The first section enumerates the breadth and depth of the notation vocabulary and discusses the findings in relation to the children's scores, rated high (80%+), average (60% - 80%) and low (60%-). This section examines the possible reasons for the occurrence of these scores in relation to the treatment programme, the design of the notation vocabulary and the children's attitudes and preferences for aspects of the motif description.

The second section briefly reviews the design of the testing instrument. It then goes on to discuss the findings in relation to the three areas of cognition: recognition, ordering and sequencing, and comprehension as evidenced in the children's individual and combined scores. Following the discussion is developed the relation to the three modes of response designed into the testing instrument, these being notation symbol ⟶ word description - written test no. 1; performance/composition ⟶ notation description -

written test no. 2; reading of notation symbol or score→ performance - action test 1.

I. Notation Vocabulary

This section considers the designed notation vocabulary in relation to: the percentage number of times a symbol or principle of the system is answered correctly, and, certain information collected in the children's profiles: background experience in related arts; preference for action families; and, reaction and responses to the notation. The section begins with a discussion of the final notation vocabulary tested in the study and continues with an examination of the results of the tests.

The breadth and depth of the notation vocabulary was based on the four principles of the system which describe: basic actions of the body; fundamental elements of time, space and relationships. Knust (1979) indicated that "every movement of the human body can be described in accordance with four simple principles" (p. 1). The first principle provides the description of the action content, in this study the eleven action families and the four major direction indications. This action content is conveyed through the shape and design of the symbol, i.e. jump. The second principle deals with the description of movement occurrences and involves the direction of writing and reading on the staff, i.e., from the bottom upwards. All the symbols placed one above the other in the reading

direction indicate that movements take place one after the other, successive action; and, those symbols written one beside another indicate that movements occur at the same time, simultaneous action. The third principle attends to the duration of action which is indicated by the length of the symbol. The fourth principle makes possible the designation of which person performs an action, and involves the arrangement of symbols on the appropriate staves. Challet-Haas (1976) considers that " ... the duration of the different movements, their direction, the simultaneity and successiveness of events are directly shown and are clearly understood (before or after the practical execution of the sequence)" (p. 81).

From these four principles, 77 notation units were identified for use in the study (Appendix 9). The implementation of this selected vocabulary took place within the creative dance experience and became the foundation of the teaching and testing programme.

Of the 80 units, only 56 were used within the programme (Appendix 14). The difference between these two numbers was accounted for in the following way: the normal teaching-learning process where material was adjusted to the learning rates, motivation and interests of the children; the length of the teaching programme which subsequently did not allow for the introduction and use of all of the symbols from the initial notation vocabulary; the additional time required

for the explanation and application of certain principles of the system.

Of the 56 units of the notation vocabulary, 39 have been selected for discussion (Appendix 15). The 39 units were selected as they contained the fundamental units with which to begin to learn and operate the notation system. In consequence, these units encompassed the basic symbols of the 11 action families, the four major direction symbols and the principles of the system that were needed for the writing and reading of action sequences and dances.

The percentage number of times a symbol or principle was answered correctly by the children together with the time frame of the testing programme is represented in figure 5. For the purpose of analysis of the results, the high scores are those above 80%; average scores are those scores between 60 - 80%; and, the low scores are those below 60% when a symbol or principle is answered correctly. The results presented in these tables clearly indicate that certain symbols and principles were learned more readily than others. A number of reasons for these results will be discussed later in this section.

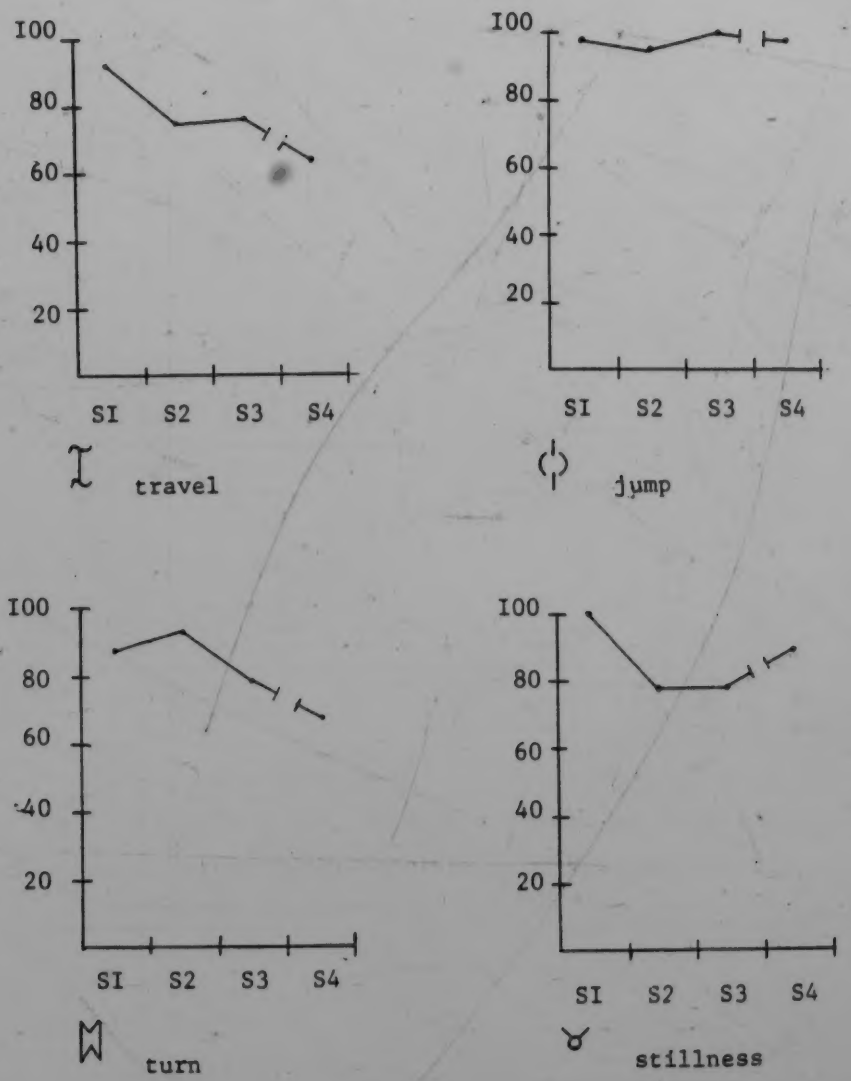
Basic Actions: Principle One

This section concerns the first principle of the system, the shape and design of the symbol, which allows for the description of the basic actions of the body. The percentage number of times a basic action symbol is answered

correctly over the four testing sessions is shown in figure 5. The results indicate that the children achieved high scores (i.e. 80%+) in all tests involving the identification of the symbols for basic actions contained in eight of the eleven action families. These families were travelling, jumping, turning, stopping, contracting, expanding, rising and sinking. The actions contained in these action families are often introduced and mastered in the first stages of a creative dance programme. The children involved in this study, who have had three consecutive years of creative dance in the A.C.C.D.T., had acquired extensive experience performing these actions.

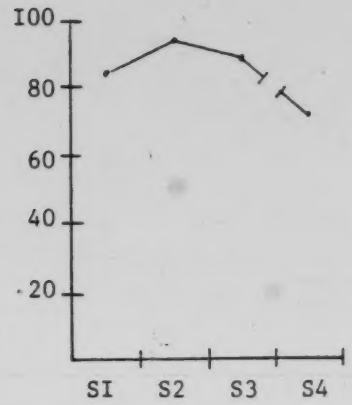
The children indicated that they had a preference for some of these action families (figure 6). This fact might also have led to the higher scores in the identification and application of the basic action symbols.

Of interest in this study is the extent to which the children used visual imagery to describe and remember the action symbols. For instance, one child commented that the jump symbol, , "looks like a jump because there is a gap in it and the two bows look like your legs are in the air". On first seeing the symbol for rising, , another child remarked that "it makes you think of going upstairs" and this prompted another child to say "it's like a candy cane as they are tall". A child described the symbol, , for sinking by stating that "it makes you feel deep down because

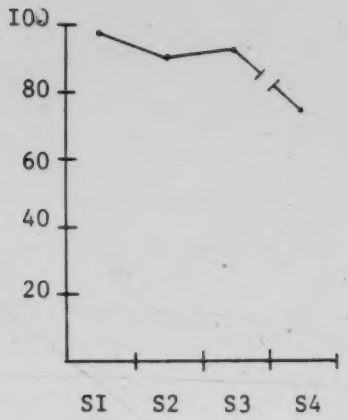


S = Testing Session

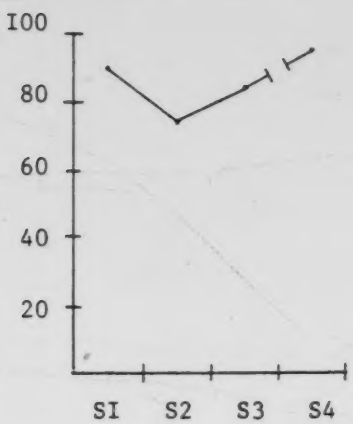
Figure 5. Percentage Number of Times a Basic Action Symbol Correctly Identified in Four Testing Sessions



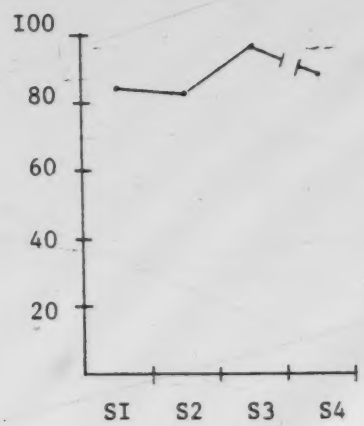
rise



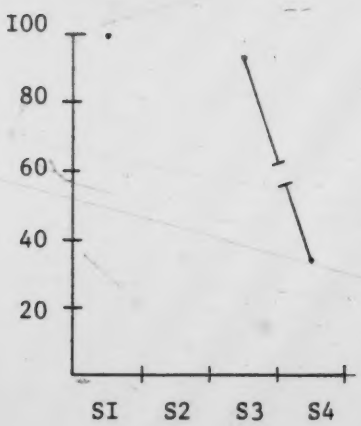
sink



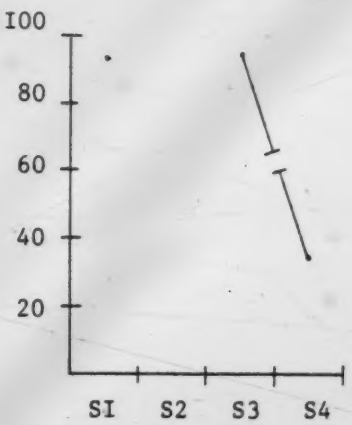
contract



extend



percussive



vibratory

Action Families	Preferences								
	Like				Dislike				
	Rank 1	2	3	Total	Rank 1	2	3	Total
Travelling	///	//		5			/	1
Jumping	//	//	//	6		/		1
Turning	///	//	/	6			/	1
Vibratory	/			1	/// //	/	/	7
Stillness						/		1
Percussive			/	1		///	/	4
Contraction			//	2		//		2
Extension	/	/	//	4				
Rising		/	/	2		/	/	2
Sinking		///		3	/		/	2
Rocking		/	///	4		/		1

Figure 6. Children's Preferences Ranked for Each of the Action Families

it is filled in and black". Clearly, these children are actively processing the ideas underlying the different action symbols and some of the symbols seem to generate more of this cognitive activity than others. This evidence would appear to support the fact that the symbols of the system were designed to reflect the action described by each symbol. Lange (1985) states that the orthography of the system was "based on criteria derived from the understanding of the motor principles of the human body", and that symbols were designed "as visual representations of the equivalent movement occurrences" (p. 13).

The findings in the questionnaire provided further information to support the idea that the design and shape of the symbols, in presenting a visual representation of a movement, helped the children to learn a symbol. For instance, one child said that she found it easy to remember the symbol, , vibratory, because "worms are wobbly" and another child remembered the pathway symbols, , because it "looks like your curving" and, , because "it is straight".

The children's comments in the final questionnaire also revealed some reasons why the children found certain symbols easier to remember: "the way they're written for instance"; "look like little figures"; "are easy to learn because they look like their action"; "they resemble the actual movements"; and, "some symbols look like their real action.

Like the jumping one the first line says your on the ground the space means you go off the ground and the two brackets on the side both kind of look like its high. And then you land back on the ground".

Some children established their own label or name for a symbol which may also have facilitated their learning of it. For instance, one child considered that the symbol for stopping, ♉ , "looked like a martian, and if you saw one (a martian) you would definitely stop". A child described the contraction symbol, X , as a "knot" and another child explained that "you could understand the direction symbols because their noses point you in the way you have to go".

The children recorded low scores in the final testing session for the symbols from the vibratory, percussive and rocking families, the results falling well below 40%. As I reflected upon these results, I considered that the percussive, vibratory and rocking families would often be introduced later in the creative dance programme as they contained actions requiring more advanced physical skill. Such actions, involving sudden, dynamic tension, for example, the actions of shaking, punching an swinging are not so easily mastered or enjoyed by young children. Thus, these children might have had little experience or skill to perform such actions. This situation may also have accounted for the children's low rating of these actions in their preferences for action families (figure 6).

Spatial Directions: Principle One

The basic action symbols also include the indication for the progression of movement in space, expressed by direction symbols. Knust (1979) explains that these symbols are "self explanatory, as they are stylized direction arrows" (p. 1). The four major direction symbols, forward; backward; to the right; to the left; were introduced to the children in the second week of the study.

In general, the children commented that the symbols were "not to difficult to learn and use", i.e., the symbols did signify for them the direction. One child commented that " the point is pointing to the left so its easy to remember it means go to the left same with except its to the right". However, for some children the direction symbols were "the hardest" to learn, and, as one child indicated, "most of it was easy to learn and use, for example, most of the movements. The directions is what was a little difficult i.e. ."

Results for the children's achievements in the variable of direction are presented in figure 7. The scores were generally high in testing session two and may be due to the fact that the symbols for direction were introduced during week two. This could be accounted for by the fact that the children handled only those four major direction symbols and could select any action to be performed in a direction; for instance, could indicate any forward action of the body

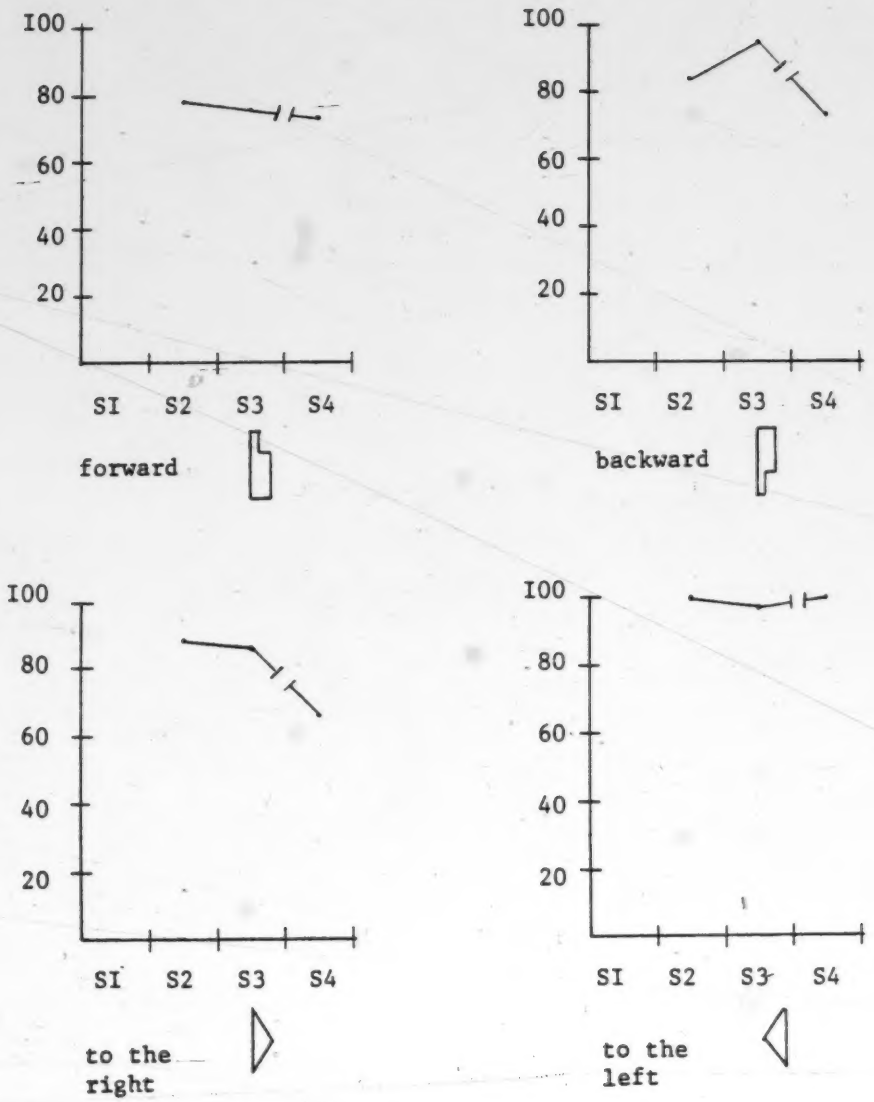
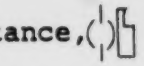


Figure 7. Percentage Number of Times Basic Action Symbols Indicating Directionality are Correctly Identified in Testing Sessions

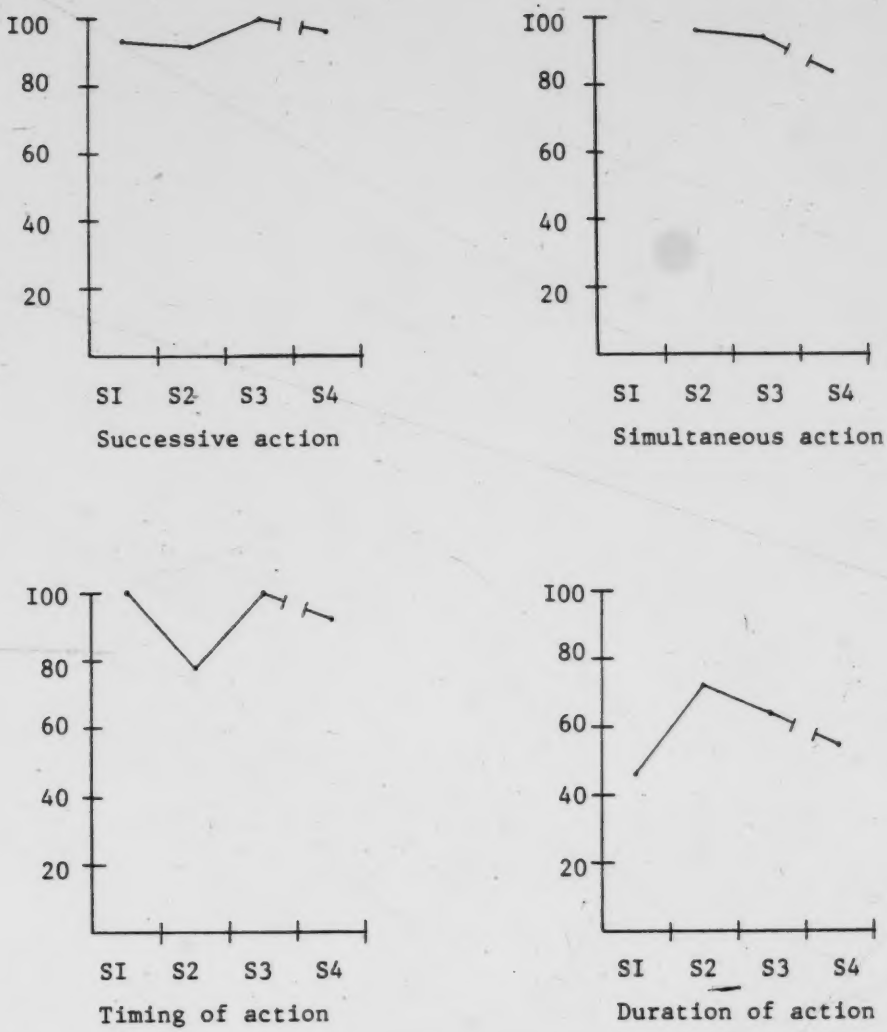
and the children could select any type of forward action; for example, a jump, travel or turning action. This then was an open problem giving greater opportunity for success than a more narrow, specific type of problem.

The spatial scores fell to average (80%-60%) in the third and fourth testing sessions. In the third week of the teaching programme the children were introduced to the recording of combined actions involving the use of direction symbols. In these combined actions, the direction of the particular action is recorded and, hence, there is no free choice of either direction or action; for instance,  indicates the specific action of jumping forward. The recording of combined actions requires also the understanding of the principle of timing which is discussed in the next section. During this time the children were also introduced to the dimension of level which requires the modification of the direction symbol through shading; for example, means rising and moving forward at the same time. As the children added more detail to their recording of dances, it was necessary for them to understand and apply the rules of combined actions and the modification of symbols. This required the identification and description of several details contained within the action. It could be that the children had not had experience in identifying such action content or enough time to learn and apply the rules which allowed for the modification of the four major

direction indications. These factors could have contributed to the children's relatively lower achievement in the final testing sessions.

Timing of Actions and Stave Indication: Principles 2 and 4

The second principle of the system permits the description of the timing of an action. Such description is recorded within the staff and involves the direction of reading, the beginning and ending of action, the placement of starting positions, and the indication for successive and simultaneous action. The children's achievements in this principle of the system are recorded in figure 8 which also shows that the children achieved high scores in all testing sessions. These results could be due to the fact that one or all of the aspects of the principle of timing is applied each time movement is recorded. Hence, the children would have had continuous practice in using the aspects of this principle. It is also considered that this principle is a clear and logical visual representation of the ordering of action and, in consequence, can be quickly understood and used. Mlaka (1972) states that the "notation system is easy to understand as the flow of movement (is) shown visually. Therefore, the identity of the movements is shown unmistakeably, and rhythm and flow are strikingly apparent (p. xx)". It may follow that this principle involving the ordering and sequencing of action in time would be easily mastered by



S = Testing Session

Figure 8. Percentage Number of Times Principles of Timing and Duration of an Action are Correctly Identified in Testing Sessions

children of this age group who have achieved those operations of true and complex classifications and seriation. These factors could have contributed to the high scores in the principle of the system.

The fourth principle of the system permits the designation of which person performs an action. In the teaching programme the children did encounter both solo and partner sequences and dances. The majority of the tests in the testing instrument assessed the children's ability to identify the timing and actions of an individual dancer, and, in only a few instances, their ability to identify a partner sequence was assessed. In consequence, the results of the two principles were combined.

Duration of Actions: Principle Three

The children's achievements in the third principle of the system, the duration of an action which is indicated by the length of a symbol, are displayed in figure 8. Even though this principle was applied throughout the teaching programme, the children achieved average and low scores in the four testing sessions. This principle involves the abstract concept of relativity which some of the children in the study may not as yet have acquired. This factor may have contributed to the lower scores. Figure 8 does reveal a rise in the scores of testing session two. This could be due to the fact that the teacher, aware after testing session one that the children were having problems with this

principle, implemented studies and dances to further explore and explain the principle. Later, as more symbols were introduced and no extra emphasis was given to the principle of timing, the scores fell again to below average. It seems evident that more instruction is needed for this principle of timing.

The general conclusions to be drawn from these results are that the children received higher scores in testing session one (80%+). The results also reveal that the scores generally lowered to average (60% - 80%) over the four testing sessions. In addition, the scores were much lower in testing session four, the majority of scores falling to average or below.

Overall Testing Scores

The results shown in figures 5, 7, and 8 also indicate that the children achieved higher scores in testing session one. This may have reflected an initial interest and enthusiasm which most children demonstrate in a new situation. It may also have been due to the fact that the children had only encountered few symbols and principles of the system at that time. However, the scores generally lowered over the four testing sessions. In particular, the scores of testing session four were much lower than those of the previous testing sessions. As the teaching programme progressed, more symbols and principles were introduced and it was not surprising that the children had difficulty in

remembering the number introduced (Appendix 14). At the conclusion of the teaching and testing programme the children had encountered 56 units of the notation vocabulary and been involved with the writing and reading of many sequences and dances. In consequence, there were many ideas and concepts to learn and retain not only within the short period of the programme, but also after the two month time lapse between testing sessions three and four.

The children were also required to record and read precise detail within action sequences and dances. Such detail required the modification of symbols; for instance, the direction symbol would be modified to describe level; the symbol for any turning action would be modified to , indicating left and right turns respectively and to indicate rolling. The general pathway symbol, , would be modified to indicate the specific pathways, straight, curved, circular and counterclockwise and clockwise. These specific pathways would be further modified using the symbols and to indicate the length of the pathway. These circumstances may also have affected the children's achievement in the tests.

Information regarding the degree of preference children had for particular action families was provided in figure 6. In relating this information to the results presented in figures 5, 7, and 8, clearly children learned those units that they liked better than those they did not enjoy.

Summary

This section presented a review of the findings of the notation vocabulary. The results of selected symbols and principles of the system were analyzed and also discussed in relation to the children's verbal and written responses. The following section, Testing Instrument, describes the results of the individual tests designed to assess the children's ability to learn and use the notation system.

II. Testing Instrument

The testing instrument was designed to focus upon the four principles of the notation system and investigate the children's responses to the three areas: recognition - the ability to recognize the principles of the system; ordering and sequencing - the ability to order and sequence movements using the principles of the system; and, comprehension - the ability to give meaning to the actions used in a notation score.

Three subtests, including a different mode of response, were designed to investigate the children's abilities in the three areas. The modes of response required the children to go from notation symbol to word description, performance or composition to notation description, and reading of notation score to performance. Competency in the three areas was tested by two written tests and one action test. The first written test, symbol-to-written, examined the children's ability to identify the symbols and principles and describe

them in a written description. The second written test, action-to-symbol, assessed the children's ability to watch an action being performed or compose their own movement sequences and then record in notation either what they had seen or what they had composed. The action test, symbol-to-action, measured the children's ability to read the notation score and perform the actions contained in it. Information concerning these tests is shown in Table 4.

Each subtest was scored on a scale of 0 - 5 points. Therefore, if all the items within a subtest were answered correctly, the maximum of 5 points could be attained.

The maximum number of points for each area, i.e., recognition, ordering and sequencing and comprehension, involving three subtests, was 15.

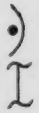
A total of 45 points could be scored for each testing session.

In the subtests, involving symbol-to-written response, a point was awarded for the correct recognition of a symbol or principle of the system.

In the subtest, involving symbol-to-action response, a point was awarded for the correct performance of a symbol or principle of the system. A proportion of a point was also awarded for the interpretation of the content in relation to the dance idea.

Table 4

Modes of Response in the 3 Subtests for Each Area

Material given	Mode of response	Test
Notation symbol	Word description	1 = Written
	Example: = Jump	
View/Compose	Symbol description	2 = Written
	Example: Jump and turn =	
Notation score	Perform	3 = Action
	Example:  Travel into fall	

In the subtests, involving action-to-symbol response, points were allocated for the appropriate actions selected for the given dance idea.

The total testing instrument consequently contained nine subtests, providing each child with the opportunity to score on a scale of 0 - 45 points. These findings are discussed in the following sections where the scores are rated as follows:

	Scores for an Area 45 maximum	Scores for a Subtest 15 maximum
High	22.5 - 45	7.5 - 15
Low	0 - 22.5	0 - 7.5

The findings will be discussed in relation to: the three areas of the testing instrument, i.e. recognition, ordering and sequencing, and comprehension; the three modes of response, i.e. symbol-to-written, symbol-to-action, and action-to-symbol; the children's individual scores in the testing sessions; and, finally, observations of the children's reactions and responses during the testing sessions. Tables 5, 6, 7 and 8 contain the findings of the testing instrument and record the results with reference to the children's age and skill in dance. Both the ages and skill

levels are ranked according to chronological age and level of skill and arranged in high and low groups.

Recognition Tests

The area of recognition required the children to identify the symbols of the system. The scores that the children received on the three subtests for the area of recognition are presented in table 5. The results indicate that the children achieved high scores in these tests. The majority of children in this study have used several symbol systems; for instance, the scripts of language, mathematics and music, and, hence, they are familiar with the recognition of symbols which is the basic process measured in these tests. This fact could have contributed to the high level of achievement on these tests.

Ordering and Sequencing Tests

The area of ordering and sequencing requires the children to place the symbols appropriately on the staff to indicate the timing and duration of action. Marks were allocated for the correct identification of the symbols and their placement on the staff. The children were again tested on four successive occasions and on each occasion completed three subtests. As shown in table 5, the scores in general gradually rose over the first three testing sessions. The reasons for these results could be due in part to the fact that the principles of timing and duration

Subjects	Age (years)	Skill in Dance Originality	Intensity	Recognition				Ordering and Sequencing				Comprehension				Total Scores			
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	13.9*	2*	2*	15	14	15	13	14	14.5	15	12	13.5	12.75	14	13	42.50	41.25	44	38
2	13.2*	7-	7-	14	9.5	11	6	13	11	13.5	9	12.25	3	14.75	9	39.25	23.5	39.25	24
3	13.2*	5*	5*	15	13	14	12	14	12	15	10	13.75	12	12.5	14.5	42.75	37	41.50	37.25
4	12.7*	1*	1*	15	15	14.5	14.25	11	14.5	13.75	10.25	15	13	13.5	14	41	42.5	41.75	38.5
5	12.5*	6-	6-	10	12	12.5	5.75	13	14	14	10.5	14.75	11	14.75	14.5	37.75	37	41.25	30.75
6	11.5-	4*	4*	14	14	15	8.5	12	12.5	14	11	12.75	13.75	6.25	14.5	38.75	40.25	35.25	34
7	11.3-	8-	8-	15	12	13.5	13.5	14	14.5	12.5	13	13.25	13	11	12.5	42.25	39.5	37	39
8	10.3-	9-	9-	12	13	11	10.5	9	13.5	7.5	11.5	9.75	12.5	11	12.5	30.75	39	29.5	34.5
9	9.8-	3*	3*	13	13.5	9.5	6	8	13.5	9	12.5	10.5	13.5	8.5	12.5	31.5	40.5	27	31

* = high group

- = low group

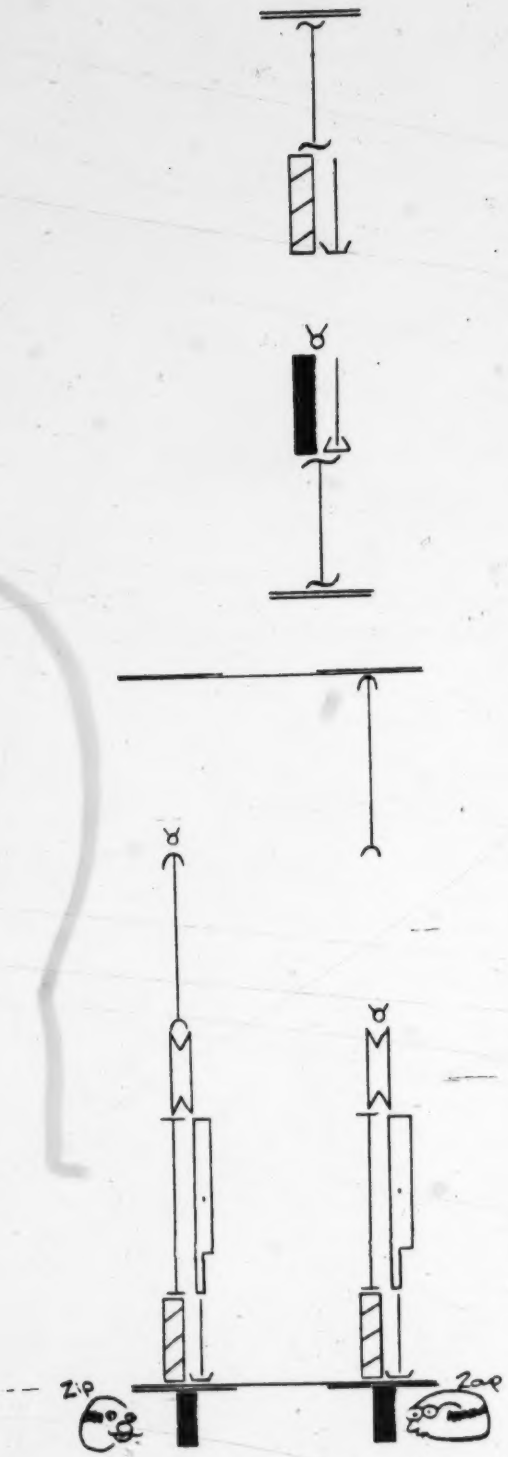
Table 5. Individual Scores for the Areas of Notation: Recognition, Ordering and Sequencing, and Comprehension. Total Scores of Combined Areas for Each Testing Session.

are visually and logically presented in a score and, therefore, could be easily handled by the children. The children also became more familiar with these principles as time progressed since they are used continuously to record movement and the children in the course of the teaching programme notated and read many sequences and dances. The fact that this learning experience provided a 'learning by doing' situation in which concepts may be reinforced and assimilated may have contributed to the gradual increase of scores in this area.

Comprehension Tests

The area of comprehension required the children to interpret and give meaning to the actions contained within a notation score. In the three subtests, marks were allocated for correct description and explanation of the content of a score. Marks were also assigned to the interpretation of the score and classified as 'very good', 'good', or 'fair'. For instance, a child was awarded full marks for the correct identification of action content and timing, plus 'very good' for the interpretation of the following sequence of a journey in a magic garden:

> Beginning
>
> There once was a girl called Sheen, who travelled through a forest every day on her way home. One day, as she was travelling on her normal path, she came across a

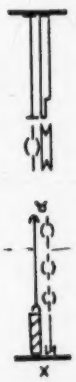


magic garden. Certainly it had not been there before. Warily, she sunk down and hid behind a bush. She watched, fascinated for a time, she remembered that her mother would be waiting at home. She rose and continued on her way after a short stretch to relieve her cramped muscles. Hopefully, it would still be there tomorrow.

In a score where two people meet each other, a child writes: One day, Zip the martian was sinking in a lake. He loved to sink! Then he noticed a martian called Zap sinking along with him. He rose, arms outstretched, as was proper to do when another martian sinks with you. They then performed the proper ritual of travelling backwards along the water. Then, they turned to go their separate ways. Zip meandered on his own way. Zap froze to watch. When he was out of sight, he stopped and

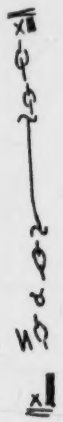
waited for Zap to catch up. (testing session two).

The results of the comprehension tests are shown in table 5. The scores achieved by the children reflect their ability to convey ideas in the mediums and dance and language. Both a depth and breadth of language is revealed through the manipulation and expression of ideas in images and metaphors. The observations show an enthusiastic response in this area of using the notation, possibly suggesting that the children enjoyed a different stimulus and means through which they could shape and communicate ideas. For instance, after reading and dancing the first part of a dance about a journey in a magic garden (symbol-to-action subtest) one child considered it important to accompany her notated score with a written interpretation of what was happening:



One day a little flower started to grow and ran about jumping she jumped and as she jumped she turned around for there was a bad dandelion so she backed up. (testing session two).

The child continued the journey of the 'flower' in the magic garden with her own notated composition and written interpretation:



... and closed up the dandelion went away to search for something the flower jumped up and stopped to see if the dandelion was still there then jumped for joy and skipped away jump, jumped and fell asleep. (testing session two).

Modes of Response

The areas of response: symbol-to-written, symbol-to-action and action-to-symbol, were designed to test the children's ability to use the notation system in the three areas.

The integration of notation and creative dance in this programme of the study provided an opportunity whereby the child's holistic way of learning could be tapped, allowing the processing of information with three of the most powerful learning modalities: the auditory, the kinaesthetic and the visual. The children would listen to the music which accompanied a dance and thereby come to know the phrases and patterns; they would dance and 'see' the ideas and images in action; they would view and read the notated score. In turn, the children would compose a dance to a

given piece of music and then record and 'see' their composition in symbols.

Symbol-to-Written Response

In the symbol-to-written response the children were asked to explain in words the content of a score. For instance, a child described the following sequence:

You start opened out. Meandering travelling finish by turning and sinking.

The child further explains the timing and other features of the sequence:

> ... you begin the dance in a shape - that is the symbol comes before the two lines. You meander for double the time that you spin and sink - you sink and spin at the same time.

The children's achievements in this test in all three areas: recognition, ordering and sequencing, and comprehension, are presented in table 6. In general, the high scores in this mode of response were attributed to the fact that the children frequently provide information in the written form in other areas of study. Information, collected at the beginning of the study for the children's profiles and including each child's I.Q. score, pointed to the fact

that these children were well able to present information in both non-verbal and verbal areas.

Symbol-to-Action Response

Data regarding the children's achievements in the recognition, ordering and sequencing and comprehension tests where they were asked to interpret and perform the content of a score are displayed in table 7. In these symbol-to-action subtests the children scored consistently high in all four testing sessions. This evidence could be related to the children's previous participation in creative dance where they have had extensive experience in selecting and forming movement to express ideas. The observations also revealed an eagerness to interpret and dance such sequences and dances. The fact that the children have had previous experience and thus are confident in such a situation may have contributed to the high level of achievement in this mode of response.

For example, in this sequence from a dance about a dangerous journey, the video recording shows a child dancing her interpretation of the theme. She is awarded full marks for correct action content and 'very good' for the interpretation of the theme.

Table 6. Results of Symbol-to-Written Subtests for Areas of Recognition, Ordering and Sequencing, and Comprehension. Results are Recorded for All Testing Sessions

Subjects	Age (years)	Skill in Dance Originality	Skill in Dance Intensity	Testing Sessions 1	2	3	4
1	13.9*	2*	2*	15	14.5	15	13.5
2	13.2*	7-	7-	14	7.5	11.75	7.5
3	13.2*	5*	5*	15	12	12	13
4	12.7*	1*	1*	12	15	13.5	14.5
5	12.5*	6-	6-	11	13	13.25	11
6	11.5-	4*	4*	13	12.5	11.75	13.5
7	11.3-	8-	8-	15	15	11	15
8	10.3-	9-	9-	12	15	8.5	14
9	9.8-	3*	3*	8	14	9.5	11

* = high group
- = low group

Table 7. Results of Symbol-to-Action Subtests for Areas of Recognition, Ordering and Sequencing, and Comprehension. Results are Recorded for All Testing Sessions

Subjects	Age (years)	Skill in Dance Originality	Intensity	Testing Sessions 1	2	3	4
1	13.9*	2*	2*	15	14.75	15	14.5
2	13.2*	7-	7-	13.75	10	15	11
3	13.2*	5*	5*	14.75	11.5	15	14
4	12.7*	1*	1*	15	14	15	14
5	12.5*	6-	6-	14.75	12.5	14.5	12
6	11.5-	4*	4*	14.25	14.5	10	11.5
7	11.3-	8-	8-	14.75	13.5	14	13
8	10.3-	9-	9-	10.75	12.5	12	13
9	9.8-	3*	3*	12	13.5	9.5	14

* = high group
- = low group

Action-to-Symbol Response

The results of the action-to-symbol responses found in table 8 indicate that the children's achievements were generally lower, particularly in the subtests three and six. In these two subtests the children were required to watch the performance of an action or a sequence of actions and then notate what they had seen. These tests focussed totally upon the visual mode, a process which did not allow for the usual integration of the kinaesthetic and visual learning modalities. It is important to note that this method of processing information totally through the visual learning modality was not used in the teaching programme, and, in consequence, the children were not accustomed to the procedure.

The children were asked in the questionnaire whether they like to write down dances composed by the teacher or danced by someone else, and one child answered, "kind of but not really. You see I only like writing down when we can add to it ourselves", and another child commented, "Yes, but it's sometimes hard to write down everything exactly".

This mode of response demands an interpretation and selection of the important details of an action. In the children's notations, such detail, for example, a particular direction or length of time, was not always included. This may have been because the children did not see the detail or

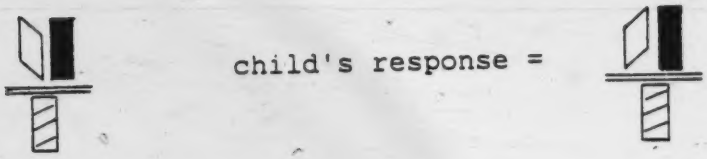
Table 8. Results of Action-to-Symbol Subtests for Areas of Recognition, Ordering and Sequencing, and Comprehension. Results are Recorded for All Testing Sessions

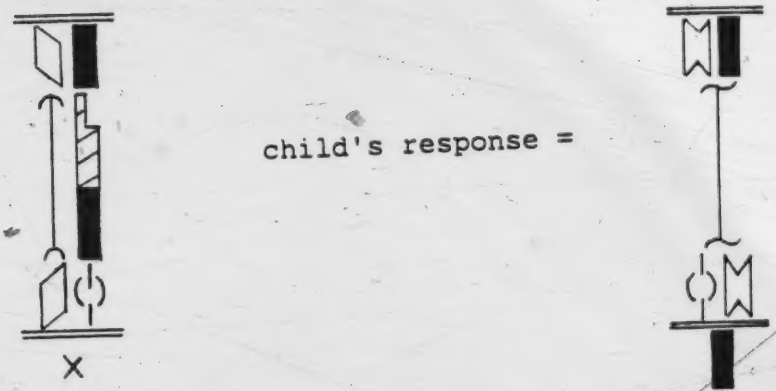
Subjects	Age (years)	Skill in Dance Originality	Intensity	Testing Sessions 1	2	3	4
1	13.9*	2*	2*	12.5	14	14	10
2	13.2*	7-	7-	11.5	6	12.5	5.5
3	13.2*	5*	5*	13	14	14.5	10.25
4	12.7*	1*	1*	14	13.5	11.75	10
5	12.5*	6-	6-	12	11.5	13.5	7.75
6	11.5-	4*	4*	11	13.25	13.5	9
7	11.3-	8-	8-	12.5	11	12	11
8	10.3-	9-	9-	8	12.5	8.5	7.5
9	9.8-	3*	3*	11.5	13	8	6

* = high group
- = low group

because they did not think it important. It may be that in many cases the children were able to identify the general indication, i.e., a turn or a jump, but did not see the further detail contained in the sequence. This could be due, partly, to the lack of experience in looking for such detail in movements, and, partly, to the individual child's interest and inclination to describe movement in detail.

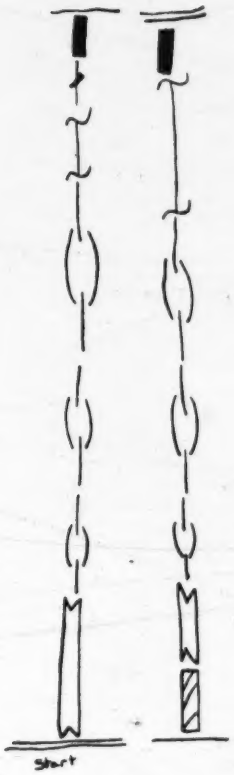
For instance, in the following examples the children have recorded the actions performed by the teacher:





Data described above may have contributed to the low scores in these two subtests. In contrast, the scores were

higher in subtest nine, action-to-symbol response, where the children were asked to compose and notate their own dance on a given theme. Examples of dances composed by the children for this subtest are found in figure 9. The success in this area may be due to the children's previous involvement and interest in creating their own dances. This explanation can be substantiated with the findings in the final questionnaire in which the children were asked if they liked to write down the dances they had composed. Each child responded 'yes' to this question with added comments by some children of "I like that the BEST', and "it's kind of fun", and "Yes, very much". One child gave the reason for enjoying this particular experience with the comment, "Yes, you see I enjoy writing it down, because, if my dance is long I sometimes can't remember how many beats each symbol is", and another child mentioned that "it helps me to come up with new ideas". The following sequence about an angry storm was composed and written by one of the children during the first testing session (subtest nine, action-to-symbol response). The sequence demonstrates appropriate arrangement and movement content for the given theme (see page 113).



Individual Scores

Individual scores for each child in this study for the areas of recognition, ordering and sequencing, and comprehension together with the subtests of symbol-to-written, symbol-to-action, and action-to-symbol are located in tables 9, 10, 11, and 12. This section considers the children's ability in notation in relation to the following information collected in the profiles: age; skill in creative dance; and attitude towards notation.

Although the children had problems in certain areas of the notation vocabulary, for example, relative timing, they did well in all areas of the testing instrument. The high

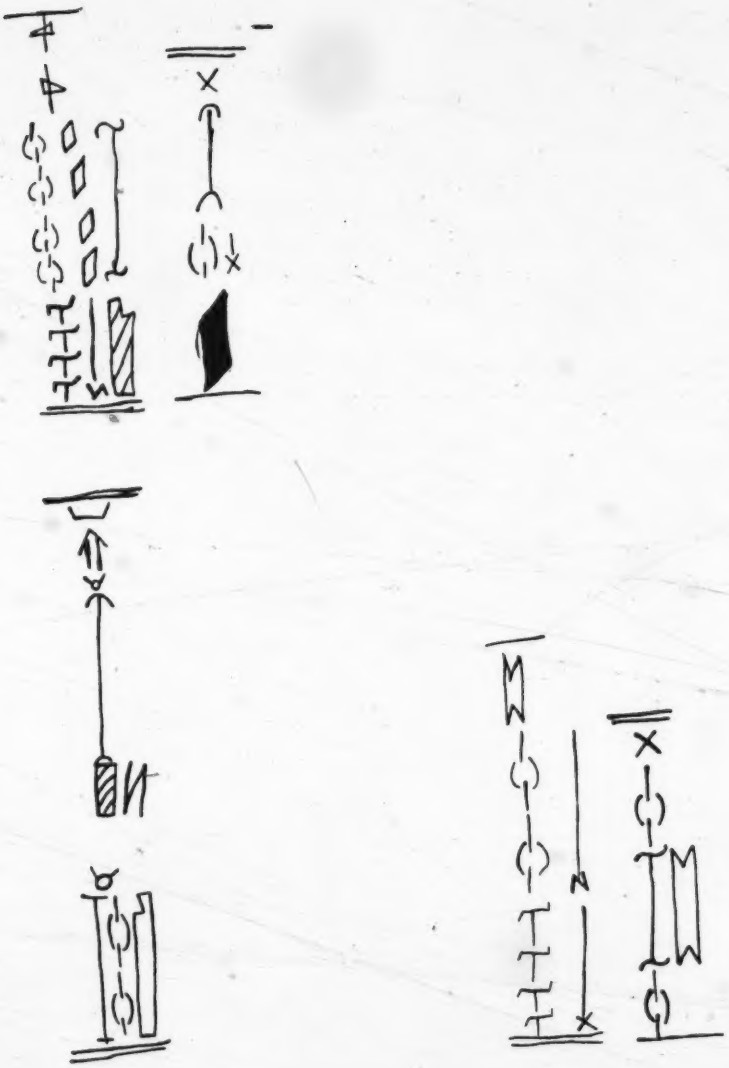


Figure 9. Examples of Dances Composed for Subtest Nine

scores may be attributed to the interest and excitement with which the children greeted a new set of symbols or notation experience. Their enthusiasm was accompanied with comments such as "the notation is like a secret language that we can send messages to each other with and now we've got more we can send more messages that no one else in our class at school will understand". A further comment was made by one child that she was "teaching her friend who is really excited that she can read my dances." It appears that new situations do stimulate the child and this fact may have contributed to the high achievement in the tests.

The results in the tests presented in tables 5, 6, 7, and 8 indicate that the children's individual scores ranged from high to low in relation to age, i.e., the older children scored consistently higher than the younger children. This finding may be attributed to the fact that the older children would have acquired those operations which characterize the formal, logical problem solving of the adolescent; for instance, the abstract concepts of proportion, correlation and relativity.

Skill in dance does not appear to relate to the children's achievement in the notation tests (refer to tables 9, 10, 11 and 12). This could be attributed to the fact that the subtests within the testing instrument did not require only those skills in dance, but also demanded skill in the responses involving the written word and symbol. It could

be considered that at this point in time the notation became an equalizer and, whatever their skill in dance, allowed all of the children a degree of proficiency in communicating their dance ideas.

General Observations

Observations of the children's reactions and responses in the testing sessions are described in this section. The information was collected from the videotaped recordings of the testing sessions.

The researcher attempted to create a non-threatening and fun atmosphere wherein the children could respond with ease and show their abilities and knowledge of the notation system. The use of the code names, implemented in order to prevent researcher bias in both the teaching and testing sessions, gave great delight to the children. They had fun keeping their code names secret and seemed to treat the procedure as a "game" in which they could answer tasks and hide their answers in a coded envelope. However, the children did treat the tests seriously and at all times quietly answered all tasks and conscientiously marked each of their testing cards to indicate whether they had been able or unable to complete the tasks. At no time did the children appear worried or frustrated by the situation. These facts may have contributed to the children's achievements in the tests.

In the symbol-to-written subtests the children moved to an area separate from each other in the gymnasium and silently wrote down their answers. There were only a few instances throughout the four testing sessions where a child asked for any assistance in answering the written tasks. In some cases a child asked for clarification of the tasks, but the questions concerning the identification of symbols or principles of the notation were asked by those children who had been absent from a previous teaching session. In all cases the researcher gave assistance, either by giving a further explanation of the tasks or providing the children who had been absent from a teaching session information about a symbol or principle. In the latter instances, the researcher noted that the information had been given to the child.

In the symbol-to-action subtests the children were required to perform the actions or sequences contained in the score. The children were given a specific length of time to practice before showing their interpretations to one of the scorers. The videotapes draw attention to the fact that the children, particularly in the first testing sessions, quickly read the scores and spent very little time practicing before showing their dances to the scorers. The videotapes also reveal, and this was also supported by comments from the scorers, that the children quickly performed their actions or sequences for the scorers. The

need to complete a task quickly may have been due to the fact that the children were concerned about remembering the movements in the scores.

During the later testing sessions, however, most of the children spent more of the allocated time practicing the actions and sequences and did not hurry through either the practicing or the performance of their movements for the scorers. The evidence, however, reveals that the younger children were still the first of the group to finish their practice and show their work to the scorers, whereas the older children would generally practice for the whole of the allocated time and reach the scorers at the end of the testing period. The researcher had also encouraged the children to spend more time both in the teaching and testing sessions in the practice of movements they have read or composed and this may have contributed to the fact that in general the children did spend more time in practicing the actions and sequences.

In the action-to-symbol subtests the children generally wrote down their ideas without first performing the actions or sequences of actions they had selected. In some cases this resulted in patterns of movement which did not flow and in a lack of clarity in the timing of a notated pattern. The test scores indicated that the children were more able by the end of the testing sessions to notate clearly and logically. The videotapes also revealed that as the testing

sessions progressed the children began to perform the movements they had selected before committing their ideas finally to paper. This may have been due, in part to the researcher who had encouraged the performance of movements selected for a dance before transmitting them to the score, and, in part to the fact that as the programme progressed the children were required to compose and notate longer sequences and in more detail. This would necessitate some practice of ideas. It can be concluded that as the children had more experience of the notation system and those processes which would help them to commit their ideas to paper that they would be able to notate legibly and clearly and present movement sequences which are logical in movement material and structure. Examples of some sequences composed and notated by the children during some of the testing sessions are found in figure 5 and demonstrate the children's ability to present their ideas clearly and legibly.

In each testing session a specific amount of time was allocated for each subtest and the children were asked to indicate if they had been able to complete the tasks. The evidence from the videotapes suggests that the time allocation was adequate. In the first two testing sessions the children tended to use the whole of the time allocated, particularly for those tests which required written answers. However, in testing sessions three and four, the children quickly finished the written tasks and proceeded on

to the next, indicating, possibly, that they did not need so much time or, on the other hand, that they wanted to finish the task as quickly as possible. A couple of the children treated the situation as a game, trying to finish before their friend. It can also be suggested that as the testing sessions progressed the children had become familiar with the procedure and did not need to consider the requirements of the task but could concentrate on the symbol content.

In those subtests which required the reading and performance of a score, symbol-to-action response, the evidence indicated that the children, particularly the older ones, wanted to use the whole of the time allocated in order to perfect their performance, whereas the younger children tended to rush through the practical tests. As previously mentioned, this could reflect the older child's attention to detail and deeper understanding of the requirements of the task in hand.

Summary of Findings

The design and range of the notation vocabulary was demonstrated in the first section of this chapter. The second section provides evidence to suggest that the children were able to learn and use the notation vocabulary within a creative dance experience.

The results indicate that the designed notation vocabulary was appropriate for an experience in notation for

children between the ages of 9 and 14 years. The scores were relatively high in all of the tests for each child to indicate that the selected symbols and principles of the system could be handled by children of this age. The evidence found in the videotapes and questionnaire point to the fact that the children were at ease and enjoyed the experience.

Having used selected aspects of the vocabulary four principles of the system in the teaching and testing programme of this study indicates that a notation vocabulary should include: the basic actions of the body; the four major direction symbols and the dimension of level; the principle of timing of actions including staff indications, successive and simultaneous timing of actions; and the duration of actions.

The evidence expressed in the findings reveals implications for the planning and design of a notation experience for children.

Chapter Six

Summary, Discussion of the Findings, Conclusions and Recommendations

Introduction

This chapter presents an outline of the research purpose and procedures. Major findings in the selected notation vocabulary, designed teaching programme and testing instrument are described. General conclusions are drawn from the findings and recommendations are made for further research.

Summary of the Research Purposes and Procedures

The purposes of the study addressed the following concerns:

1. The design and implementation of a process of learning and instruction which would be relevant for children between the ages of nine and fourteen years and would enable the children to learn and use the notation system in a creative dance experience.

2. The design of a notation vocabulary which would be appropriate for children between the ages of nine and fourteen years who have had three years successive experience in creative dance.

3. The identification as to whether the children had learned and were able to apply the selected symbols and

principles of the system in the writing, reading and performance of actions, sequences and dances.

4. The consideration of children's attitudes and responses to the designed programme and in particular to the notation experiences.

Design of the Study

A group of 16 children, 15 girls and one boy, between the ages of nine years and 0 months and 14 years and 0 months participated in the teaching programme and testing unit. Nine children, who had completed all teaching and testing sessions, became the final sample of the study. Each teaching session, lasting one and one-half hours, involved the practical exploration of selected themes of creative dance and the related symbols and principles of the notation system. After each of the two consecutive teaching sessions and after a two month time lapse following the completion of the programme, the children's ability to learn and use the notation system was tested. The results of the notation tests together with the responses and participation of each child were considered and the content and methods employed in the teaching programme and testing instrument were described and evaluated.

Summary and Discussion of the Findings in the Teaching Programme, Notation Vocabulary and Testing Instrument

Teaching Programme

This section presents a summary of the design and major findings in the teaching programme. The discussion of the findings is speculative in nature and is based on the researcher's observations during the study and the video recordings of each session, together with the responses of the children in the final questionnaire.

The materials and processes which constituted the teaching programme in the study provided the children with the following opportunities: to examine several dance ideas; to investigate movement possibilities; to create and share their own dances; and to perform and examine dances composed by others. Notation, relating to a particular lesson emphasis, was integrated into each task and focussed attention upon a specific aspect of the dance experience.

The children's responses and attitudes toward the dance and notation experiences appeared to be most positive. The various ways in which the notation symbols were introduced and, later, recalled and reinforced, for instance, the "game" activities and the use of "cut-out" symbols, helped the children to learn and master the principles of the system in this environment of trust.

Several reasons may have contributed to this. Of primary importance was that all of these children were

volunteers, had parental support and approval and had a strong affinity for creative dance. The children had also been in contact with the teacher/researcher for the past year in the creative dance environment and a mutual trust relationship had already been developed. Although all teaching-learning should ideally occur in an atmosphere of trust, it may be of particular importance in an area such as notation where a child's self-esteem could become strongly linked to success or failure.

Building upon this trust relationship, the notation was introduced to the children in "games" - like activities, "cut-out" symbols, chalkboard activities, secret codes, etc. By utilizing these activities the child's focus was distracted from the notation per se and freed them to learn in a manner suited to their age and experience. This led to an enthusiasm to explore the movements for the dance studies and ideas and record their own movement selections using the notation system. The dance studies and ideas encouraged and challenged the children both to perform the notated sections and to compose and record within the given framework. The children's notated scores indicate their ability to handle the notation system in both the writing and reading of dances. The questionnaire also revealed that the children had enjoyed the experiences in the teaching programme and felt that they were able to use the notation system in their dance work.

This has further implications for the teacher of notation. There must be a built in success ratio and the children must be able to select and choose from a range of challenges. Children will bring different strengths to notation, one will bring precision and desire for detail and accuracy, another will wish to grasp meaning of a more global nature. Some will be strong in the visual perception of an action, others will read with greater fluency. The notation environment must be built to accommodate those differences.

Notation Vocabulary

This section presents a summary of the design and the major findings of the notation vocabulary. The results are based upon the children's ability to identify and apply the selected principles of the system.

The notation vocabulary was designed to investigate the use of motif description within the creative dance experiences for children. It was based upon the four principles of the notation system which describe: the basic actions of the body; the fundamental elements of time, space and relationships. From these four principles, 56 units were finally identified and used within the study. These units were introduced and explored within the creative dance experiences.

Thirty-nine of these units were selected for discussion. The units encompassed the basic symbols of the 11

action families, the four major direction symbols and the principles of the system that were needed for the writing and reading of action sequences and dances. The children's ability to identify the symbols and principles within the designed notation vocabulary was assessed by considering the percentage times a notation unit was answered correctly. For the purpose of the analysis of the results, the high scores were those above 80%; the average scores were those between 60% - 80%; and the low scores were those below 60% when a symbol or principle was answered correctly. The results summarized below indicate that certain symbols and principles were learned more readily than others:

1. The children attained high scores in:
   i) principle one, the identification of basic actions of the body (figures 5 and 7, pages 82, 83, and 88)
   ii) principle two, the description of the timing of an action which involves the direction of reading, the beginning and ending of action, the placement of starting positions, and the indication for successive and simultaneous action (figure 8, page 91)
   iii) principle four, the designation of which person performs an action (figure 8, page 91).

The children involved in this study would have had extensive experience in the physical exploration and performance of the above principles. —This experience, together with the repeated practices in using the principles for both the writing and reading of action, would have contributed to their success.

2. As shown in table 7, the children attained average to low scores in principle three, the description of the duration of an action.

This principle involves the abstract concept of relativity which some of the children in the study may not as yet have acquired. This fact may have contributed to the lower scores.

3. In the testing sessions the children attained:

i) higher scores in testing session one

ii) scores which generally lowered to average over the four testing sessions

iii) scores which were much lower in testing session four, the majority of scores falling to average or below.

The higher scores in testing session one may have been due to the fact that the children had only encountered few symbols and principles of the system at that time. As more symbols and principles were introduced during the teaching programme, the children had more information to retain and recall in the succeeding testing sessions. This fact may

have contributed to the gradual lowering of the scores. The fourth testing session took place after a two month time lapse following the third testing session. During this time the children had not taken part in any sessions involving notation and a natural tendency to forget information which is not used continuously may have contributed to the lower scores in the final testing session.

The results of this study, whilst inconclusive, provided pertinent information for further investigation specifically because few studies have occurred in relation to notation with children of this age. The most important information is that it is possible to design a notation vocabulary for children that they can both handle and enjoy.

Testing Instrument

This section presents a summary of the design and major findings of the testing instrument. The results are based upon the children's abilities in the three areas of notation and the three modes of response.

The testing instrument was designed to focus upon the selected notation vocabulary and investigate the children's responses to the three areas: recognition - the ability to recognize the principles of the system; ordering and sequencing - the ability to order and sequence movements using the principles of the system; and comprehension - the ability to give meaning to the actions used in a notation score.

Three subtests, involving two written (word description and notation) tests and one action test, were designed to assess the children's abilities in the three areas. The total testing instrument consequently contained nine subtests, providing the child with the opportunity to score 5 points for each subtest and a total score of 45 points. The scores were rated for each area as follows: high scores 22.5 - 45 points; low scores 0 - 22.5 points. The scores for each subtest were rated as follows: high scores 7.5-15 points; low scores 0 - 7.5. The results of the tests are summarized below:

1. In the area of recognition, the children attained high scores for the first three testing sessions.
2. In the area of ordering and sequencing, the scores gradually rose over the first three testing sessions.
3. In the area of comprehension, the scores were high for the first three testing sessions.

The picture that appears to emerge from these three results may be very specific to this population of children and at the same time have implications for the introduction of notation to children. In the area of recognition, these children were "high flyers" because of their I.Q. scores and their experience with symbolic systems. Recognition presented them with few problems. In the area of ordering and sequencing, the scores indicate, by their gradual increase, that having

grasped the underlying principles of the system, these children were able to apply them with ease.

Of particular note, however, is the children's response in the area of comprehension. These children are continually raised in their creative dance experiences to understand the symbolic nature of movement. At an early age they are experiencing the visual imaging of actions conveying the meaning of rain, clouds, snow, wind. As abstract concepts develop, the meaning in action becomes tranquility, power, anger, peace. The children, therefore, having been nurtured in the symbolic meaning of action were able to build upon the understanding and instantly 'see' meaning in notation symbols. Again, because of the symbolical depth and breadth of creative dance, it may be that introducing notation to children in this form should be one of their primary notation experiences. This would be in keeping with our understanding of how children learn and bring meaning to their world and derive meaning from it.

4. In the symbol-to-written mode of response the scores were generally high in all testing sessions.
5. In the symbol-to-action mode of response the children attained high scores in all four testing sessions.

These results indicate that the children revealed very little difference in their ability to handle the

symbol-to-written and the symbol-to-action modes of response. This is perhaps an unexpected result as one might have anticipated that symbol-to-action would have been the children's strongest mode of response. Three reasons could be proposed for this expectation. The first reason is that these children are familiar with the action content in this study. The second reason is that it would be natural for these highly skilled children to use action rather than words to convey their ideas. For example, whereas , jump, can be interpreted in a wide variety of ways in action it is restricted in the written word to jump, or a few derivations or synonyms. One could propose, therefore, that, in symbol-to-action, there is greater freedom of response and more possibilities than in symbol-to-words. The third reason that could be conjectured is the nature of the process from symbol-to-written. One would anticipate an intervening action knowledge occurring in the process. For example, for the symbol the child has a visual image or a kinaesthetic image of the , and then translates the image to the word jump. These two modes of response to notation clearly need further investigation.

6. In the action-to-symbol response, the children attained high scores. However, these scores were not as high as the scores attained in the other two modes of

response. This was particularly the case in the subtests three and six, which required the children to watch the performance of an action or sequence of actions and then notate what they had seen.

The action-to-symbol response is particularly complex because of the nature of movement. A single action is received visually by the child. This requires heightened powers of observation and an ability to extract the significant features of what has been seen. It could be that the child with high visual perceptual skill could in fact score very poorly in such an operation because they do not understand which information to omit and which to record. This could be the reason why subtests three and six show lower results.

Subtest nine, where the children were asked to compose and notate on a given theme, presented the children with an easier task of selection. Here the children would notate what they considered to be relevant and important in the movement content of their dance.

7. The scores ranged from high to low in relation to age.

It would be expected that the older children would attain higher scores than the younger children as they would have acquired those operations which characterize the formal, logical problem solving of the adolescent.

8. Skill in dance did not appear to relate to the children's attainment in the tests.

This was a homogenous group, each child being highly skilled in the area of creative dance. Therefore, it was not possible to equate the range of scores in the notation tests where the children were beginners with their experience and high level of skill in dance.

General Conclusions

The study attempted to answer certain questions regarding the relevance and appropriateness of the selected notation vocabulary and the designed teaching and testing programme. The use of the creative dance form in the teaching programme presented the children with an appropriate vehicle through which to learn the notation system. Findings indicate that through practice the children were able to learn and apply the principles of the notation vocabulary in the writing and reading of dances. The children were able to recall and use the notation symbols and principles during the teaching programme and fairly well after the two month lapse of the programme. Observations reveal that the children were enthusiastic and responsive participants in both the teaching programme and the testing instrument of the study.

Recommendations

Recommendations for the Design of a Teaching Programme Which Integrates Creative Dance and Notation

1. Selected dance ideas and notation materials should be appropriate to the age and experience of the children.

2. Notation should be introduced into the dance class as it is needed and learned through the context of the dance experience.

3. Opportunities to investigate movement possibilities, to create and share their own dances, and perform and examine dances composed by others should be included in the programme and become the vehicle for learning and using the notation system.

Recommendations for the Design of a Notation Vocabulary Which Can be Used Within an Integrated Notation and Creative Dance Programme

1. An initial notation vocabulary should be based upon the general description of movement, called Motif Description.

2. A notation vocabulary should include:

   i) the description of the basic actions of the body, principle one of the system, recorded through the symbols of the system.

   ii) the description of the timing of action, principle two of the system, involves the staff indications of direction of reading,

beginning and ending of action, the placement of starting positions and the indication of successive and simultaneous action.

iii) the description of the duration of action, principle three of the system, is indicated by the relative length of the symbol.

iv) the description of which person performs an action, principle four of the system, is expressed by the placement of the symbols in the appropriate staves.

3. A notation vocabulary should be identified which provides the means to record and read dances composed by others and by the children themselves.

4. In the initial stages of the teaching programme, the notation vocabulary should be used continuously so that the children have a good understanding and are able to apply the basic principles of the system. Eventually, further symbols and principles can be added and the notation system utilized when needed to identify and clarify movement material within the dance programme.

Recommendations for the Design of a Testing Procedure

1. The testing procedure should assess those areas of cognition: recognition, ordering and sequencing and comprehension, which enable children to apply the notation system in the writing and reading of dances.

2. The modes of response through which children indicate their abilities to apply the notation system should reflect those developmental stages through which children progress to include the written description, word and notation, and action description, the interpretation and performance of the content of a score.

3. Tests should assess the children's abilities to write down movement, in the recording of their own compositions and after viewing someone else perform.

4. Tests should assess the children's abilities to read and interpret the content of a dance score.

Recommendations for Further Study

1. Further implementation of the teaching programme in different dance settings. This would assess the relevance of an integrated notation and creative dance programme for children both in the school and dance studio environments.

2. Further examination of the length of a teaching programme integrating notation and the creative dance form. This would reveal an appropriate period of time for the introduction and application of the basic principles of the system.

3. The introduction of the notation system to different age groups of children, consequently identifying an appropriate age at which the notation system can be introduced.

4. The development of the teaching programme implemented in this study to identify the stage at which structured description could be introduced to children.

5. Follow-up examination of the testing procedure. This would establish a means through which children's abilities to record and read dance could be assessed.

6. An examination of the types and sequencing of materials that would assist the dance teacher, for example, written lesson plans, notation scores, videotapes, audiotapes and visual aids.

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APPENDICES

Appendix 1

ALBERTA CHILDREN'S CREATIVE DANCE THEATRE

The Alberta Children's Creative Dance Theatre, founded in 1968 at the University of Alberta, Faculty of Physical Education and Recreation, provides an on-going programme of Creative Dance for children from the age of 3 to 14 years. The programme is many faceted and defies singular definition or simplistic description. The following information, consequently, relates specifically to the context of this thesis, but does not encompass the full spectrum of "the theatre" in either process or practice.

In 1986 the A.C.C.D.T. operates within the administrative structure of the Department of Physical Education and Sports Studies. The 160 children registered are drawn non-selectively from both community and university based families and span the ages 4 to 14 years.

The programme content is specifically the creative dance form growing out of the conceptual framework of the work of Rudolf Laban. The content of Laban's movement analysis is both modified and enriched by a strong emphasis upon the importance of musicality and language experiences. These three interwoven strands provide the children, throughout their creative dance experience, with understanding of the symbolic process inherent in movement. Simultaneously the children are nurtured in a teaching-learning environment that fosters recognition of the child being central to the creative dance process. Empowered to own their own dance and to risk creatively, the children develop strong trust relationships with teachers, parents and audiences that enables them to enter into new situations (i.e. notation) with openness and a "sense of adventure".

Parental understanding and support built into the programme throughout all of the years finally ensures that the children are secure in a society that gives minimal attention to this art form.

The "theatre" then, perhaps uniquely situated within a university structure, can examine, observe, record and research the developmental phases of children's creative dance without too many external pressures impinging upon the "delicate ecology" of such an environment.

[JLB] March '86.

Appendix 2

QUESTIONNAIRE REGARDING BACKGROUND EXPERIENCE, LIKES AND DISLIKES OF ACTION FAMILIES

Name .....

Age ..... Date of Birth .....

Which of the following activities do you like to do? Tell me if you go to classes or have taken any examinations in any of the activities.

Art _____

_____

Dance _____

_____

Drama _____

_____

Music _____

_____

Look at the chart of action families.

Tell me which are your favourite 3 actions.

_____.

_____

_____

Tell me which actions you do not like to do.

_____

_____

_____

ELEVEN ACTION FAMILIES

Travelling actions
Vibratory actions
Jumping actions
Turning actions
Stopping actions
Percussive actions
Ccntracting actions
Expanding actions
Sinking actions
Rising actions
Rocking actions

Appendix 3

THREE EXTERNAL JUDGES

Boorman, Joyce

Professor, Department of Physical Education and Sports Studies, University of Alberta.

Director and Founder of Alberta Children's Creative Dance Theatre, 1968-1986.

Chairperson of First International Conference on Dance and the Child.

Recipient of Queen's Silver Jubilee Medal, 1978.

Alberta Achievement Award of Excellence, 1978.

Tait McKenzie Honour Award, 1985.

Honorary Member of Dance and the Child International.

Author, researcher, and international guest speaker on the developmental phases of children's creative dance.

Carline, Sally

1969-72	Teacher Training: I.M. Marsh College of Physical Education (England). Teaching Certificate.
1972-74	Physical Education Teacher: Eccles Grammar School (which became Ellesmere Park Comprehensive during that time).
1977	Lecturer: Fine Arts course. Grant McEwan College.
1978-82	Consultant (E.O.F. grant) at Campbelltown School, County of Strathcona: implementing a Movement Education programme for regular, opportunity and slow learners.
1981	Graduated from the University of Alberta: B.Ed.
1977-85	Staff of the Alberta Children's Creative Dance Theatre under the Direction of Dr. Joyce Boorman.
1982	Co-writer with Dr. Joyce Boorman of the Dance Curriculum for the Edmonton Catholic School Board, Grades 4 - 6.
1983-85	Sessional Lecturer. Department of Physical Education and Sport Studies, University of Alberta: Movement Education courses and Creative Dance courses.
1977-85	Inservices, Professional Development, Teachers' Convention (Creative Dance) for: Early Childhood Association Counties of Strathcona, Parkland, Red Deer Edmonton Public School Board Edmonton Separate School Board Parks and Recreation Alberta College Music Department
1985	Presently working towards an M.A. in the Department of Physical Education and Sport Studies in the area of Children's Creative Dance.

Vallance, Janette M.

Education:

Stratford Teachers College.

University of Western Ontario, B.A.

Ontario Department of Education P.E. Supervisors Certificate

Chelsea College of Physical Education, Specialist Certificate, U.K.

Art of Movement Studio (Laban), Specialist Certificate, U.K.

York University, M.A.

Research in Creative Dance Education underway in Ph.D. Studies, University of Alberta.

Teaching Experience:

Rural classroom: Colborne Township Board of Education

Urban classroom: North York Board of Education

Assistant Supervisor of Physical and Health Education:- North York Board of Education

Staff member: Ontario Department of Education. Teachers Summer Courses, McMaster University

Staff member: Truro Teachers College, Nova Scotia

Associate Professor: Faculty of Education, Department of Elementary Education, University of Alberta

Administration Experience:

Vice-Principal: Ontario Department of Education. Teachers Summer Course, Guelph University; Principal Summer Course, Guelph University; Principal Summer Course, Don Mills, Toronto

Inspector and Consultant Ontario Ministry of Education and Thunder Bay Regional Offices

Vice-Principal: Huron Street Public School, Toronto Board of Education.

Appendix 4

ASSESSMENT OF SKILL IN DANCE

Please place the children listed below in rank order according to the following:

ORIGINALITY - the number of different ways in which the child handles and arranges movement material (breadth).

INTENSITY - the ability to work with the material presented and bring meaning to the movement (depth).

O	I
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Appendix 5

QUESTIONNAIRE REGARDING ATTITUDE TOWARDS NOTATION

Please tell me your opinions and ideas about the work in notation we have been doing together. You may write as much as you want in answer to a question or you may answer Yes, No, or Do Not Know.

1. Did you find the notation easy or not too difficult to learn and use?

2. Explain what makes it easier to remember some symbols.

3. Did any of the movements help you to learn a symbol? If so, which ones?

4. Do you like to read the symbols?

5. Do you like to dance and then see the symbols?

6. Do you like to see the symbols and then dance?

7. Do you like to write down the dances the teacher taught you?

8. Do you like to write down the dances which you composed?

9. Is it useful to have the dances written down?

10. Do you think you will use the notation again?

Appendix 6

SUMMARY OF RESPONSES & RECOMMENDATIONS OF EXTERNAL REFEREES

The external referees recommended adjustments in the designed notation vocabulary and definition of notation terms. Appendix 9 contains the modified notation vocabulary. The queries concerning the teaching and testing programme were considered and assisted in the final developments of materials for the study. Each of the three referees concluded their recommendations with support of both the notation vocabulary and testing procedures, for example:

> The balance of the notation vocabulary seems good.
> (Hutchinson Guest)

> I feel the questions are clear and the scope is wide enough to obtain the required information re the children's ability to read, write and dance.
> (Kane)

> Agreed that with three divisions of testing able to evaluate strengths and weaknesses in learning.
> (Venable)

The following recommendations were made:

1. The reordering of Action Families equivalences in Labanotation. This includes the addition of certain actions to the families, for instance, the turning family to include the action of twisting; the contraction family to include the action of unfolding; the rocking family to include the actions of swinging, tilting and weight shift; the vibratory family to include accents.
2. The renaming of the symbols , lift/lower to rise/sink.
3. The recategorization of the action of travelling, , into the Basic Action units.

4. The modification of symbols. The symbol of open and close, ⌒ ⌒ , were changed to ⌣ ⌓ , in order to agree with the decisions of International Council of Kinetography Laban.

   As there is no general symbol for the action of swinging in the notation system it was necessary to devise an appropriate symbol. The symbol was agreed upon.

5. The occurrence of symbols in the notation tests. It was commented that appeared often in the tests and that did not appear at all.

The following questions concerning the teaching and testing programme were posed:

1. How will the sessions of 1+½ hours each be structured? Will there be a general framework of basic movement exploration, followed by specific identification of the appropriate symbols leading into creative use of the material in hand, concluding with class evaluation of what has emerged, the children trying out one another's class "compositions" and so on?

2. Would recognition be taught through watching others or through experience in the dance class?

3. Was the teaching of rhythm implied or would it be taught as a separate subject area?

4. Would the materials be tested prior to the programme?

5. Would all the children be tested at the same time in the testing sessions?

EXTERNAL REFEREES

ANN HUTCHINSON GUEST

Director, Language of Dance Centre, London.
Honorary President of The Dance Notation Bureau, New York.
Member of the Board of Governors of The College of the Royal Academy of Dancing, London.
Licentiate (Cecchetti) of the Imperial Society of Teachers of Dancing, London.
Instructor and Advisor at The Laban Centre, Goldsmiths' College, London University.
Core Member of the International Council of Kinetography Laban.

BIOGRAPHICAL INFORMATION

Born in New York City, educated in England. Professional dance career in New York City. Married to dance historian, Ivor Guest.

Academic Education General Certificate of Education (Honours), Cambridge University.

Honorary Doctorate from Marygrove College, Detroit University (L.H.D.), 1977.

Dance Training MODERN: Diploma, with notation certificate, from the Jooss-Leeder Dance School, England - 3 year course.
With Hanya Holm, Martha Graham, José Limon, New York.

BALLET: Cecchetti: With Vincenzo Celli, Margaret Craske, Antony Tudor, and leading teachers of the Cecchetti Council of America and the Cecchetti Society in London.

Russian: Ballet Arts, School of American Ballet, etc.
Courses in folk, ethnic, jazz etc.

Music Piano up to Higher Examination, Royal Academy of Music, London.

Notation Training 3 years at the Jooss-Leeder school, in the Laban system, one year further practical experience as notator to Ballets Jooss (Green Table, Big City, Ball in Old Vienna, Pavane).

Work with senior Kinetography Laban teacher Albrecht Knust, and other notation colleagues.

Notating The recording of 20 major choreographic works, such as Humphrey's "The Shakers"; Balanchine's "Symphony in C", "Orpheus", "Theme and Variations", "Four Temperaments", "Scotch Symphony", "Concerto Barocco", "Bourrée Fantasque", etc. etc. Tudor's "Soirée Musicale"; Massine's "Beau Danube"; Robbins' "Charleston Ballet"; also numerous smaller dance works, such as Ted Shawn's "16 Dances in 16 Rhythms", Balanchine's "Pas de Neuf", "Better Dancing with Fred Astaire", "The Six Fairies' Variations from Sleeping Beauty", Markova's version of "The Sugar Plum Fairy". Recording of The Bournonville School; R.A.D. Children's Syllabus; Historical Syllabus of the I.S.T.D., and many other Labanotation publications.

Movement Notation Systems Concentrated on the study of old and contemporary dance and movement notation systems. Has studied 24 different systems, and is fluent in five.

Editor/ Author The Dance Notation Record, 1942 - 1956.
The Labanotator, 1957 - 1969, 1978 -
Co-Editor: The Kinetographer, 1973 - 1976.

Author of Labanotation Publications
LABANOTATION textbook, 1954. Revised and expanded 1970.
"Primer for Dance" - Books I and II", 1958, 1959.
"First, Second, Third and Fourth Ballet Reader"
"Ballet ABC - Books I, II, III"
"Ballet Alphabet"
Correspondence Courses in Labanotation.
Language of Dance Teaching Aids.
Language of Dance Course - Modern.
Language of Dance Course - Ballet.
Compiler and Editor of "Dance Techniques and Studies".
Miscellaneous Children's Dances, Children's instruction books.

Articles on Dance Notation Contributor of "Choreography and Notation" for the Encyclopaedia Britannica.
Author of numerous articles on notation in books and for the leading dance and physical education periodicals.

Lecturer on	Labanotation: Career as a Dance Notator; The History of Dance Notation: A Comparison of notation systems through the ages; Notation as an Educational Tool; - at colleges and ballet societies in the United States, England, Holland, France, Denmark, Sweden, etc.
Production Experience	Rehearsed and directed reconstructions from the Labanotation scores of the following ballets:
Reconstructions, Revivals	Balanchine's "Symphony in C" Tudor's "Soirée Musicale" Humphrey's "Shakers", "Partita" The Broadway musical "Kiss Me Kate!"
Research; Historical Rivals	Fanny Elssler's "Cachucha", transcribed from the old Zorn notation and taught to dancers of the Royal Ballet, England, and the Vienna Ballet. The Pas de Six from "La Vivandiere", transcribed from the old Saint-Leon notation and taught to the Joffrey Ballet, New York, and the Sadler's Wells Royal Ballet, London. "Chaconne for Harlequin" transcribed from Feuillet notation.

ANGELA KANE

Lecturer, Laban Centre for Movement and Dance, London.

DANCE AND NOTATION TRAINING

1971-74: Hull College of Education, N. Humberside. 1974: Certificate in Education. Main subject: Physical Education and Dance.

1981-82: Laban Centre for Movement and Dance, London. Elementary Laban Certificate. Intermediate Certificates in Education and Labanotation. Dance Notation Bureau Elementary and Intermediate Certificates.

1983-84: Language of Dance Centre, London. Assistant to Ann Hutchinson-Guest. Main project: correcting, up-dating and copywork of George Balanchine's "Serenade".

1983- Laban Centre for Movement and Dance, London M.A. in Dance Studies degree, 1983-84: Twentieth Century Dance History 1984-85: Advanced Laban Studies 1985-86: Aesthetics and Dance Criticism.

1985- Advanced Labanotation Certification: Reconstruction completed.

TEACHING EXPERIENCE

1974-81: Brunswick Junior High School, Hull, N. Humberside. January, 1976: Scale 2 post - Head of Girls' Physical Education and Dance.

1978-81: Hull, Adult Evening Institute, N. Humberside. Technique, Improvisation and Creative Dance classes.

1982-82: Laban Centre for Movement and Dance, London. Graduate Assistant teaching Labanotation, Technique, Improvisation and Composition.

1983- Laban Centre for Movement and Dance. September, 1984: Lecturer II appointment.

1984- University of London Goldsmith's College. Evening class for teacher, with special reference for the G.C.E. 'O' Level examination in Dance.

1984- Institute of Choreology, London
Teaching Labanotation to Benesh-trained specialist (notators, physiotherapists).

SHORT COURSES

June, 1983: Froebal Institute, London
2 week Intensive Notation Course for Year I Dance Students.

September, 1983: Introduction to Notation for visiting
January, 1984: Norwegian Drama Teachers.

February, 1984: Thamesdown Education Authority. Introduction to the G.C.E. 'O' Level in Dance.

September, 1984: Inner London Education Authority, London. Introduction to the G.C.E. 'O' Level in Dance.

October, 1984: University of Surrey, Guildford. Notation course for teachers involved in teaching G.C.E. 'O' and 'A' Level Dance.

January, 1985: Teachers' Training College, Bergen, Norway.

January, 1985: Newhan Education Authority, London. Introduction to the G.C.E. 'O' Level in Dance.

January, 1985: Newham Education Authority, London. Introduction to Labanotation for Primary Teachers.

April, 1985: Y.W.C.A., London (Norwegian Drama Students) Notation as a stimulus for creative activity.

July, 1985: Laban International Summer School, Laban Centre for Movement and Dance. Teaching Beginners Notation and Twentieth Century Dance History.

CONFERENCES ATTENDED

August, 1983: International Council of Kinetography Laban, New York, U.S.A.

August, 1984: International Movement Notation Congress, Tel Aviv, Israel.

August, 1985: International Council of Kinetography Laban, Brighton, England. Nominated for Fellowship and for membership of the Research Panel.

LUCY VENABLE

Professor, The Ohio State University.

WORK IN LABANOTATION

Directing

Reconstructions (works directed from dance scores)

The Ohio State University, "Soaring", 1984
Stockholm, Sweden, "Day on Earth", 1983
The Ohio State University, "Day on Earth", 1980
University of Maryland, "The Shakers", 1976
José Limon Dance Company, "Ritmo Jondo", 1976
The Ohio State University, "Negro Spirituals", 1974
The Ohio State University, "Passacaglia & Fugue in C Minor", 1973
The Ohio State University, "The Shakers", 1973
The Ohio State University, "Pop. 18", 1971
University of Utah, "Water Study", 1968
Foundation for Modern Dance Education, "Partita No. 5", 1967, 1968.
Hackensack, N.J., "Water Study", 1966
American Dance Theatre Co. & National Education Television, "Passacaglia & Fugue in C Minor", 1965
New Dance Group, NYC, "The Shakers", 1965
High School of Performing Arts, NYC, "The Shakers", 1959, 1963
High School of Performing Arts, NYC, "Song of the West", 1959
Rhode Island College, "The Shakers".

Directing Consultant

University of Wisconsin (Milwaukee), "Passacaglia & Fugue in C Minor", 1970, 1981
University of Illinois, "The Shakers", 1980
SUNY at Brockport, "Passacaglia & Fugue in C Minor", 1979
Ohio University, "The Shakers", 1977
University of Maryland, "The Shakers", 1976
University of Maryland, "Passacaglia & Fugue in C Minor", 1972

Company Director

Company Director, 1954-57, 1958-60, Merry-Go-Rounders Dance Company for Children, 92nd St. YM-YWHA, NYC
1952-53, One of the founder & company notator

Rehearsal Director

"There is a Time" by José Limon, taught by Jennifer Scanion to the University Dance Company - 1983.

RESEARCH

Member of Research Panel of ICKL (International Council of Kinetography Laban), 1969-77

Participated in the following ten day conferences for the development of the Labanotation system:

Tarrytown, N.Y. (Conference Chairman), 1983
Columbus, Ohio (Conference Chairman), 1981
Chantilly, France, 1979
Eastbourne, England, 1977
Herisau, Switzerland, 1975
Nonington, England, 1973
Leeds, England, 1971
Hilversum, Holland, 1969
Addlestone, England, 1967
Essen-Werden, Germany, 1965

Conceived and directed: Labananalysis Research Workshop at The Ohio State University, 1973 & 1976

Research in the development of the IBM Selectric Ball with the Labanotation elements

Standards Committee, Dance Notation Bureau, developing methods of score checking, setting standards for scores

Resource person for:

Jean Daubenimire's project "A Study of the Communicative Interaction of Nurse-Patient-Physician", School of Nursing, OSU (funded), 1971

Archlab Consultants, recreation project for the handicapped for the Department of Natural Resources, State of Ohio (funded), 1973-74

Supervisor of project by George Karl to make a special Labanotation program for the Apple 512K, 1984-present

PUBLICATIONS

Dance Scores in Labanotation (Dance scores are usually not published but are available for study and rental at the Dance Notation Bureau Library, NYC. Those not marked published are to be found there.)

Revised score of "Soaring" by Ruth St. Denis & Doris Humphrey, 1985

Revised score of "Flickers" by Charles Weidman, as directed by Linda Mann Reed, 1982 - in progress

"There is a Time" by José Limon as taught by Jennifer Scanlon, 1983 - in progress

"A Gift of Wings" by Rosalind Pierson, editor of score, 1980

"Holiday in Israel" by Fred Berk, published by DNB, NYC, 1977

Revised 1st Movement of "Vivaldi Concerto" by José Limon, 1973

"Les Noces" by Jerome Robbins, with Muriel Topaz

"With My Red Fires" by Doris Humphrey, with Els Grelinger, Muriel Topaz, Rena Gluck

"Ikkaku Sennin", a Noh play, with Odette Blum & Ray Cook

"Family Scene" from "Memoir" by Helen Tamiris, 1968

"Women's Song", by Helen Tamiris, 1968

"Negro Spirituals" by Helen Tamiris, 1968

"Brandenburg #4 1st Movement by Humphrey-Currier, assisted by Jennifer Scanlon, 1961

"Passacaglia and Fugue in C Minor" by Doris Humphrey, 1955

Booklets

Dances from Israel, co-authored with Fred Berk, DNB, 1963, Rev. 1967

10 Folk Dances in Labanotation, co-authored with Fred Berk Music Publishers Holding Corporation, NYC, 1959

Articles

"Labanotation", Quest, Monograph XXIII, Jan. 1975, pp. 44-50
"Dance Notation", The Arts, The Ohio State University, vol. 1, no. 1, 1969

"Will Dance Be Literate", Journal of Physical Education and Recreation, January, 1969

"Passacaglia 1938-65, The Art of Remaking a Dance", Dance Scope, vol. 1, no. 1, Spring, 1969

Reviews

"Explorations", Dancing Times, London, Vol. 59, No. 708, 1969

Your Move by Ann Hutchinson Guest, CORD Dance Research Journal, Fall, 1984

Lectures/Workshops About Labanotation (Prior to 1968 unless otherwise stated)

Harvard School for Cognitive Studies
Columbia-Barnard
New York University
Wells College
New School for Social Research
Pratt Institute
Temple University
Eastern District Meeting of AAHPERD
1964 Workshop of National Association for Physical Education of College Women
Friends of the Libraries of OSU, 1977
AAHPERD Pre-Convention Workshop, Detroit, 1980
Columbus Branch of National League of American Pen Women, 1985

CONFERENCES (Invited Panel Member or Chairman of Panel)

The International Congress on Movement Notation, Israel, Aug. 12-22, 1984. Chairman of panel on Practicalities of Notation

International Laban Centenary Symposium, Goldsmiths College, London, England, July 23-27, 1979. Report on Dance Notation Bureau Extension at OSU.

CORD (Congress on Research in Dance) Conference, San Francisco, 1974. Chairman of session on recording dance
Many Roads: A Wellesley Career Conference, November, 1974

CORD Conference, Tucson, Arizona, 1972. Notation panel

The Developmental Conference on Dance, UCLA, Nov. 24 - Dec. 3, 1966. Sponsored by the U.S. Office of Education

PROFESSIONAL ORGANIZATIONS

Offices (last 4 years)

Vice-Chairman, International Council of Kinetography Laban, 1984-87
Chairman, International Council of Kinetography Laban, 1980-83
Dance Notation Bureau:
Board Member, 1968-present
Co-Chairman, Professional Advisory Committee, 1979-present
Board of Examiners for Professional Notators, 1978-present
Publications Committee, 1981-present
Congress on Research in Dance, Notation Editor for "Dance Research Journal", 1974-present

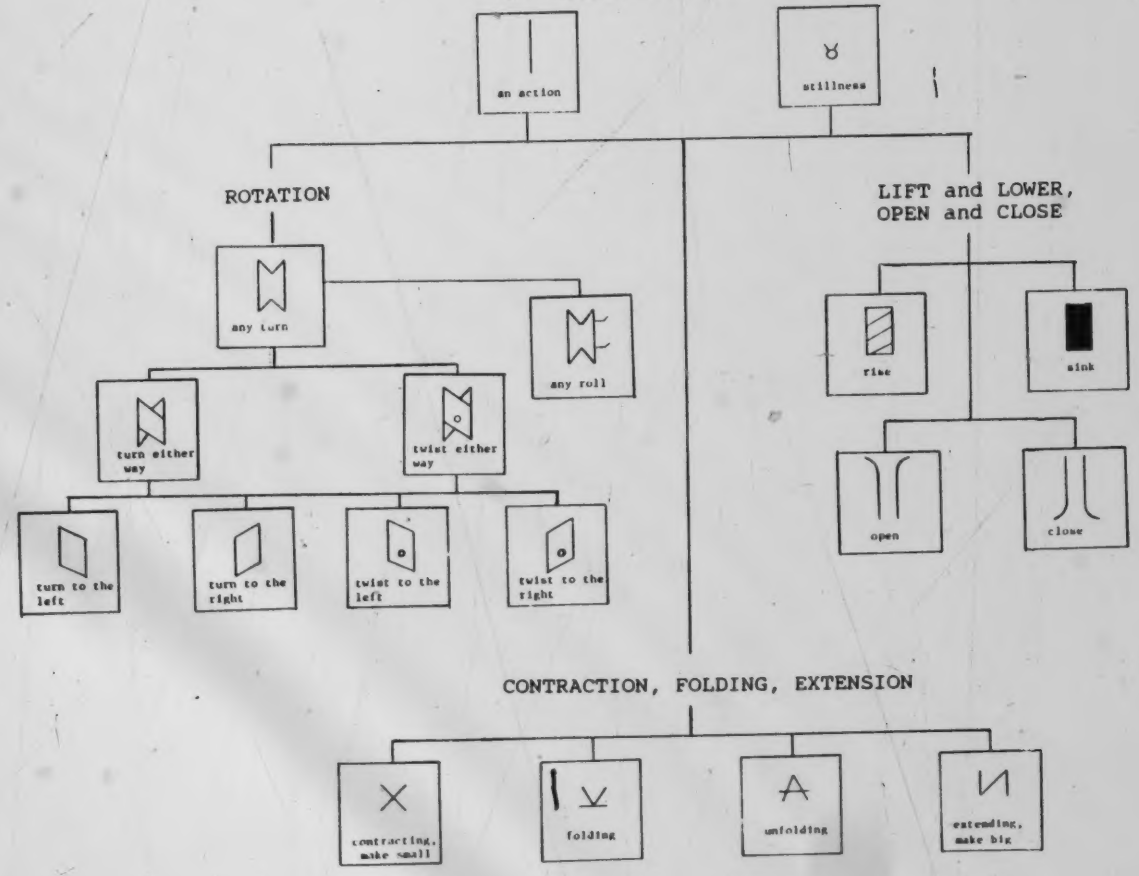
CURRICULUM DEVELOPMENT

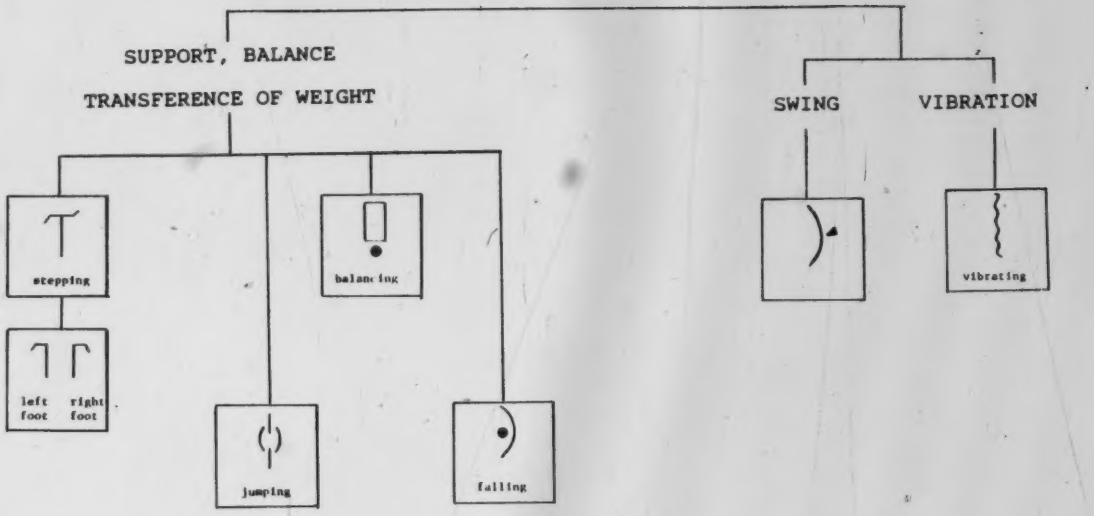
Dance Fundamentals (Dance 111.02)
Dance 620, 621, 622, 623, 820, 821, 822, 823 - The undergraduate and graduate Labanotation sequences, in collaboration with Odette Blum
Directing from Score
Elements of Dance (Dance 803 and 804)
Alexander Technique (601.07)
Advanced Fundamentals (Dance 694F)

Appendix 7

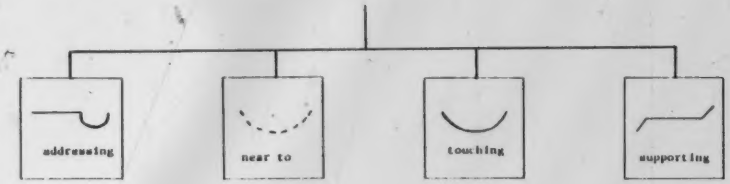
INITIAL NOTATION VOCABULARY

25 BASIC ACTION UNITS

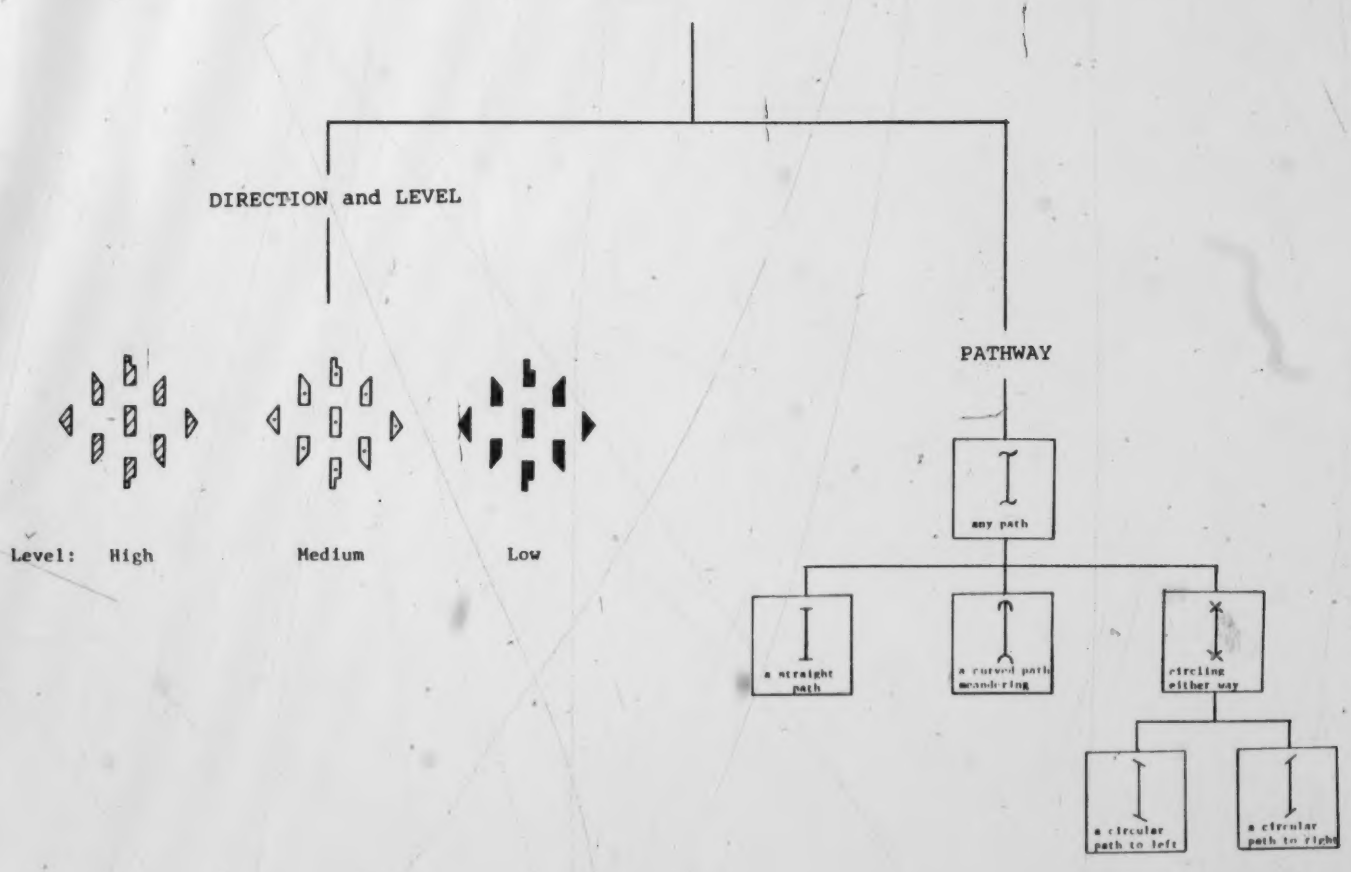




4 Relationship Units



33 Spatial Units



10 Principle Units

Graphic Structure

1. Movement is recorded through the use of abstract symbols placed on a vertical staff.
2. The vertical staff represents the flow of time.
3. The notation is read and written from the bottom of the page upwards.
4. The shape and shading of direction symbols describe the progression of movement three dimensionally.

Spatial Indications

1. Direction and level are shown by the shape and shading of the symbols.
2. All directions are basically related to the front of the mover.

Timing and Duration

1. Timing of movement is indicated by the placement of the symbols on the staff.
2. Duration of movement is shown by the proportional length of the symbols.
3. Symbols written vertically up the staff indicate the succession of movements.
4. Symbols written across the staff indicate simultaneity of movements.

Appendix 8

REQUEST TO EXTERNAL RESOURCES FOR REACTION AND RECOMMENDATIONS TO NOTATION VOCABULARY

May 2, 1985

Dear

At present I am studying in the Faculty of Graduate Studies at the University of Alberta with a view to obtaining my M.A. degree. My programme of studies is within the Department of Physical Education and Sport Studies. My advisor is Dr. Joyce Boorman and my thesis committee is made up of Dr. Ted Wall, Professor and Chairman of the above department, and Dr. Bob Jackson, Professor Language in the Department of Elementary Education. During the course of my studies my research focus has been towards the application and integration of Labanotation in the creative dance experiences of children.

As you are a recognized international expert in the field of Labanotation your advice and input to my research proposal would be invaluable. My committee has therefore advised that I contact you to seek input and guidance. This will be both recognized and inserted at the appropriate place within the thesis. In addition, if you are able to contribute in this way we would appreciate receiving a curriculum vitae from you that specifically addresses your work in the field of Labanotation. This too will be placed in the Appendices of the thesis.

The research project in which I am involved is concerned with identifying features that relate to children's abilities to understand and apply Labanotation in creative dance experiences. In the course of designing this research it has been necessary to establish:

i) the Labanotation test vocabulary (see Appendix I).

ii) the procedures and methods for scoring the test vocabulary (see Appendix II).

Your specific input is requested in the following:

1. Is the test vocabulary, in your opinion, appropriate for children from 9-14 years of age who have had previous creative dance experience but no Labanotation experience?

2. Is the test vocabulary, in your opinion, appropriate for the time length of the research programme which consists of 9 consecutive sessions of 1½ hours per session over a period of 3 weeks?

3. Do the combined tests reflect a balance of the test vocabulary or do they over-emphasize or de-emphasize any of the 72 units?

Although your reaction is requested specifically to these three questions, other insights that you may have which would be of value to the research will be most welcome.

Thank you for your anticipated cooperation. Hopefully we will see more and more research involving the area of Labanotation which will benefit the field with which we are all concerned.

Yours sincerely,

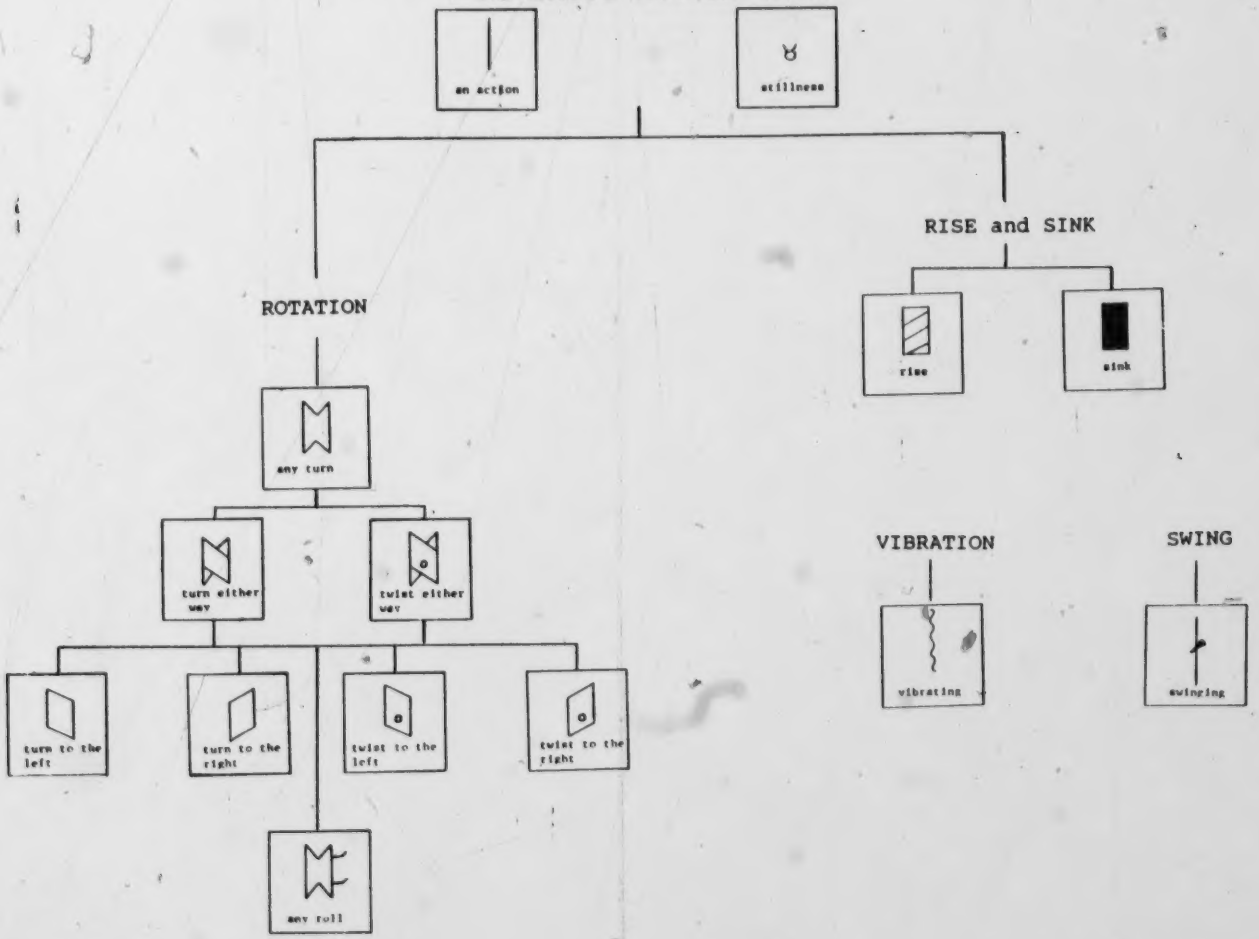
Ann Kipling-Brown
Graduate Student

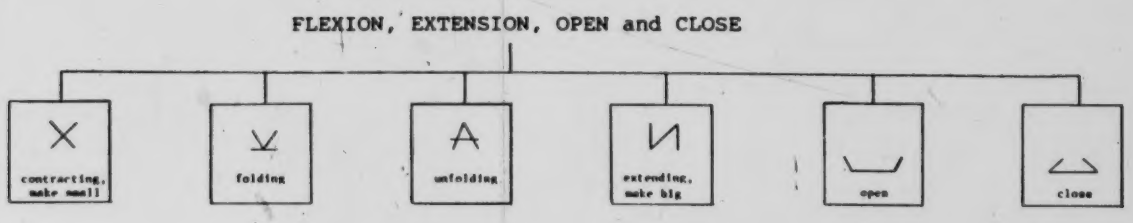
AKB/lsj

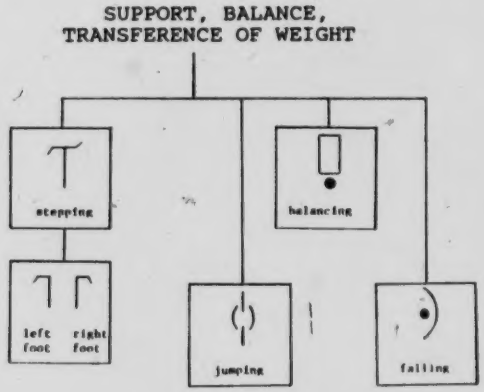
Enclosures

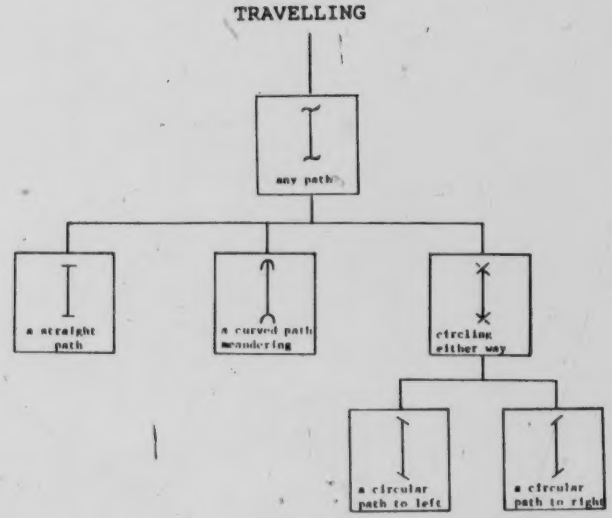
Appendix 9

MODIFIED NOTATION VOCABULARY
31 BASIC ACTION UNITS



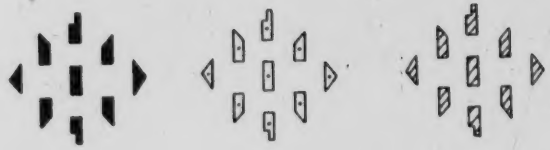

FLEXION, EXTENSION, OPEN and CLOSE
contracting, make small
folding
unfolding
extending, make big
open
close


SUPPORT, BALANCE, TRANSFERENCE OF WEIGHT
stepping
balancing
left foot
right foot
jumping
falling


TRAVELLING
any path
a straight path
a curved path meandering
circling either way
a circular path to left
a circular path to right

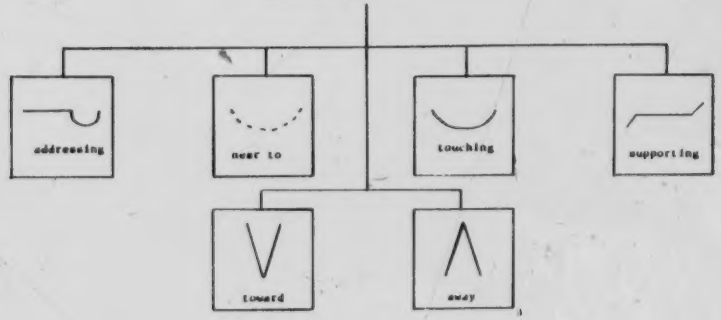
27 SPATIAL UNITS

DIRECTION and LEVEL



Level: Low Medium High

6 RELATIONSHIP UNITS



13 Principle Units

Graphic Structure

1. Movement is recorded through the use of abstract symbols placed on a vertical staff.
2. The vertical staff represents the flow of time.
3. The notation is written and read from the bottom of the page upwards.
4. Double horizontal lines mark the beginning and ending of the action.
5. Indications placed before the double starting line signify a position; those following the double line signify movement.
6. A separate staff is given to each individual dancer; only one staff is needed if a group of dancers are moving in unison.
7. All parts of a score are joined together by a line at the start and end of each page.

Spatial Indications

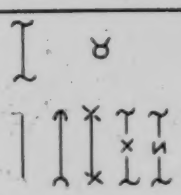
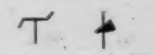
1. Direction and level are shown by the shape and shading of the symbol.
2. All directions are basically related to the front of the mover.

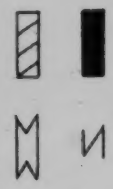
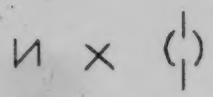
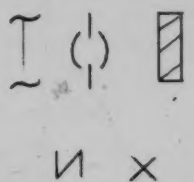
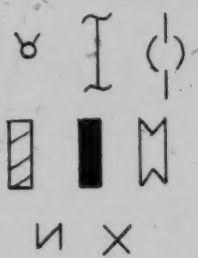
Timing and Duration

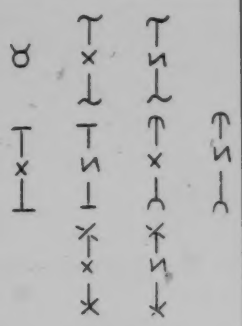
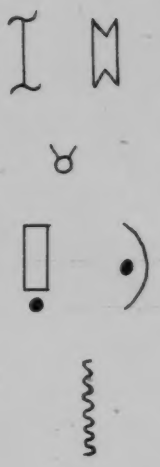
1. Timing, the movement of occurrence, is indicated by the placement of the symbols on the staff.
2. Duration of movement is shown by the proportional length of the symbols.
3. Symbols written vertically up the staff indicate the sequence of movements.
4. Symbols written across the staff indicate simultaneity of movements.

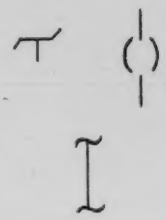
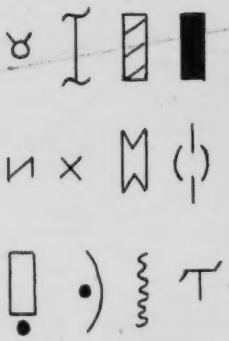
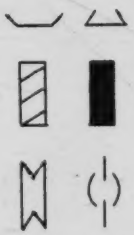
Appendix 10

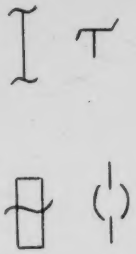
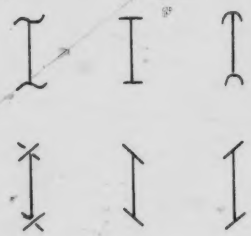
SYNOPSIS OF THE TEACHING PROGRAMME

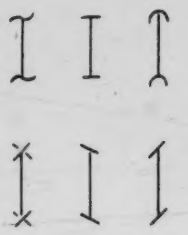
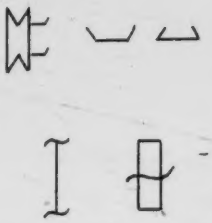
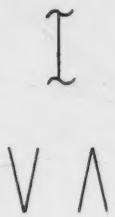
Notation Symbols & Principles Introduced	Dance Vocabulary	Method of Presentation
<u>Lesson 1</u> 1. the symbol	 different ways of , running, skipping, galloping, etc.	<u>Introductory Activity</u> Travelling & stopping Individually: i) practical exploration of the actions, dance vocab. ii) view symbols
2.  number of actions the staff, beginning and ending of the dance sequential movement	creeping 	<u>Dance idea:</u> Creatures of the Night. Individually: i) practical exploration of the actions ii) view symbols iii) compose a phrase iv) select the cut-out symbols which represent the composed phrase v) a partner reads and dances the composed phrase

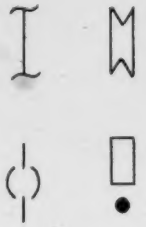
3. sequential movement relative timing		Dance idea: Sundown Individually: i) practical exploration of the actions ii) view symbols iii) compose a sequence iv) select the cut-out symbols which represent the composed sequence v) dance for a partner
4. 		Dance idea: Get up in the morning Individually: i) practical exploration of the actions ii) read a composed dance phrase
Lesson 2 1.		Introductory Activity Individually: i) view ii) practical exploration of the actions introduced in Lesson 1

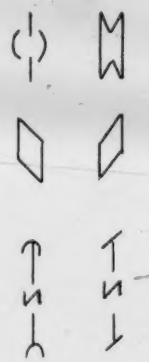
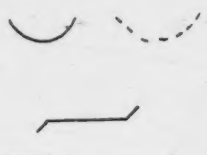
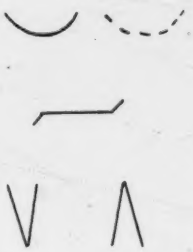
2. timing in relation to phrases in the music		<u>Dance idea:</u> Travelling Dance Phrases Individually: i) practical exploration of the actions ii) read and dance the score
3.		<u>Dance idea:</u> Tightrope Individually: i) practical exploration of the dance idea ii) identify vocabulary to be used iii) view symbols iv) compose a sequence v) select and order the cut-out symbols which represent the movements in the composed sequence vi) transfer the notation to paper

4. simultaneous movement sequential movement		Dance idea: A Stepping Dance Individually: i) dance the sequence composed by the teacher ii) read the score iii) record any additional details to the sequence iv) compose and record further sections v) dance for a partner
Lesson 3 1.		Introductory Activity Individually: i) view individual symbols and phrases of symbols ii) practical exploration of the actions previously learned
2. timing of simultaneous actions		Exploration i) practical exploration of the theme of opening and closing of simultaneous actions ii) view symbols

3.		<u>Dance idea:</u> A Direction Dance Individually: i) practical exploration of directions ii) compose and notate a sequence using paper and pencil iii) dance for a partner
4.		<u>Dance idea:</u> Dancing together i) dance the sections composed by the teacher ii) read the score of these sections iii) record the additional details to these sections iv) compose and record further sections
5. 		<u>Exploration</u> of the theme of travelling With a partner: i) practical exploration of the pathways - leading and following ii) view symbols

Lesson 4 1. relative timing		**Introductory Activity** With a partner: i) view symbols ii) practical exploration of the actions
2.		**Dance idea:** The Magic Carpet Individually: i) practical exploration of the actions ii) view symbols iii) read and dance the score iv) dance for a partner
3.		**Dance idea:** A Dangerous Journey Individually: i) practical exploration of the actions ii) view symbols and staff indication for two people With a partner: iii) compose and record a dance using paper and pencil

		iv) give a title to the dance v) dance for the group
Lesson 5 1. timing of actions within a pathway symbol		Introductory activity Individually: i) view symbols ii) practical exploration of the actions With a partner: iii) compose and record a sequence using paper and pencil iv) dance each other's partner sequence
2.		Dance idea: Moods With a partner: i) practical exploration of the movement material for a particular mood ii) compose and record a dance on the blackboard iii) dance for the group iv) the group reads the viewed dance

3. number of turns starting position		<u>Dance idea:</u> Turning and Travelling Dance Individually: i) dance the composed framework of the dance ii) record any additional detail iii) record the starting position
4. 		<u>Dance idea:</u> Relationships With a partner: i) practical exploration of relationships ii) compose and record a sequence showing a particular relationship iii) select a title
<u>Lesson 6</u> 1. 		<u>Introductory activity</u> Individually: i) practical exploration of the relationships ii) view symbols

2.		<u>Dance idea:</u> The 2 Detectives Individually: i) read and dance the dance score - the first section of a dance With a partner: ii) arrange the first section with a partner iii) record the additional details to the score iv) compose and record the next section of the dance

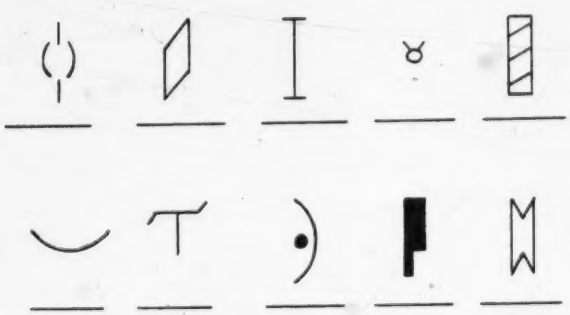
Appendix 11

AN EXAMPLE OF THE TESTING INSTRUMENT
SENT TO EXTERNAL REFEREES

1. Recognition Tests

1 Identify the following symbols by writing under each symbol the movement equivalent:

(symbol - written)

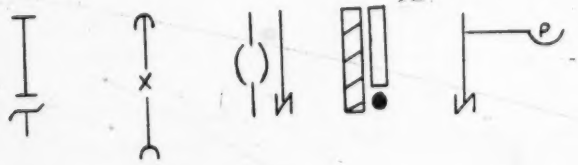


2. Read and dance the following sequences:

(symbol - action)

3. Watch the teacher dance the following movement patterns and then record what is happening:

(action - symbol)



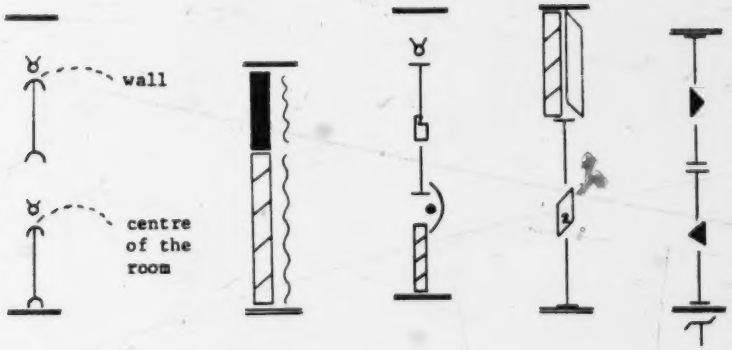
2. Ordering and Sequencing Tests

4 What differences do you see in the following symbols and where does the movement sequence begin and end?

(symbol - written)

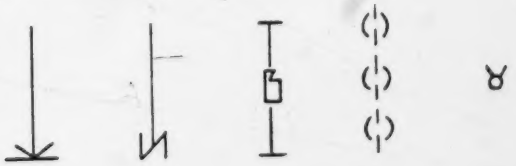
5 Read and dance the following sequences:

(symbol - action)



6 After listening to the music, arrange the following movements in a sequence which you like. Record your pattern.

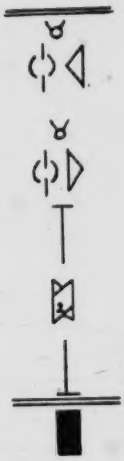
(action - symbol)



3. Comprehension Tests

7 Write a story about the following sequence:

(symbol - written)

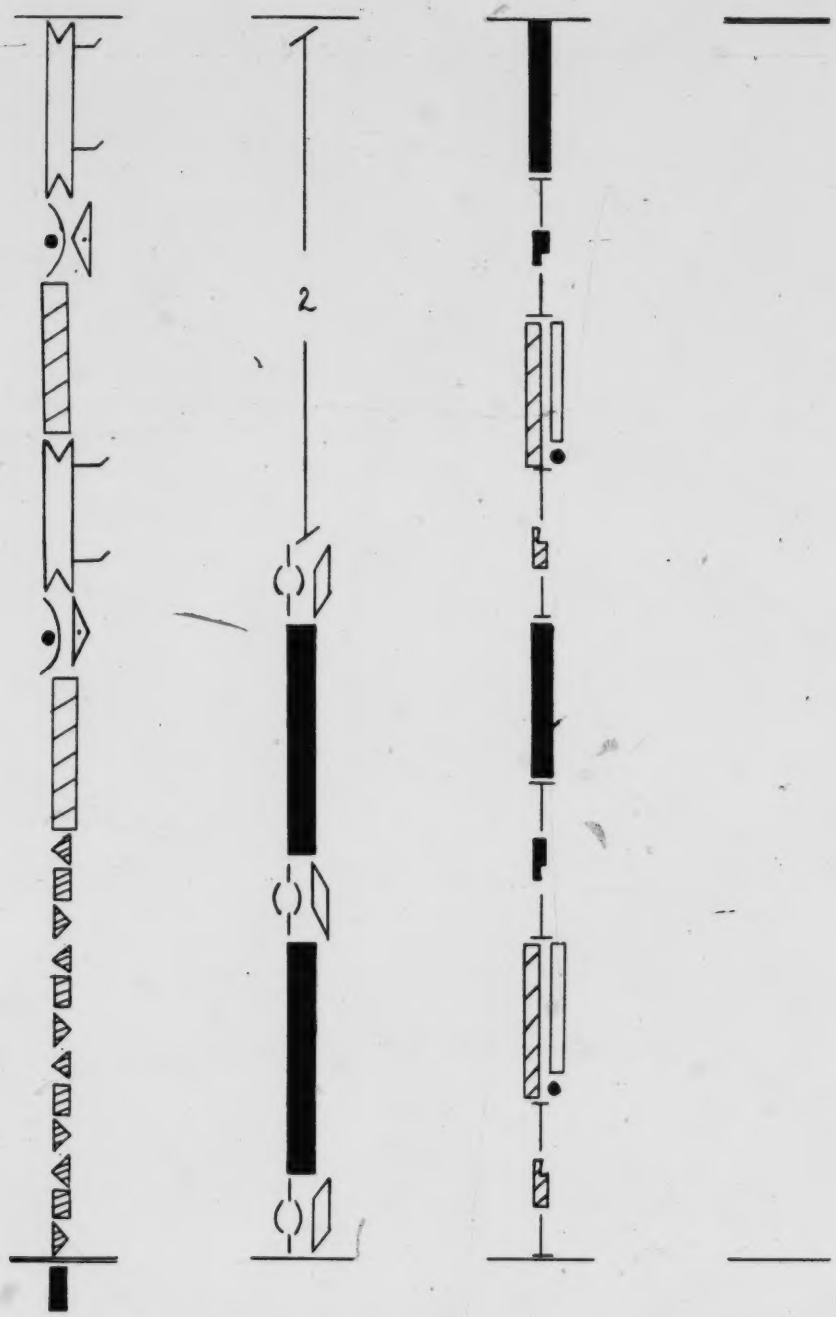


8 Read and dance the section of the dance called "The Sea".

(symbol - action)

9 Compose a final section for the dance called "The Sea". Record your dance in the space provided on the score.

(action - symbol)



THE SEA

Appendix 12

THE SCORERS

JACQUELINE MAISIE WEIR formerly Erskine, nee Marshall

EDUCATION:

Hons. B.A. in P.H.R.E., University of Western Ontario, 1953
High School Teaching Certificate at Ontario College of Education, University of Toronto, Special Summer Courses 1959 and 1960, Type A summer course, 1962
York University: Elementary Guidance Certificate, 1966
Concordia University, Montreal, Quebec, one course at graduate level, P.E. in Europe, Summer, 1977.
M.A. in Physical Education, Leeds University, 1980 (program coordinated by June Layshon).
York University: Part I Special Education, Summer 1985
University of Alberta: Doctoral Candidate

PROFESSIONAL STANDING:

Type A Permanent High School Specialist in Physical and Health Education
Type B Permanent High School Assistant Certificate in English, History and Geography
Elementary Guidance Certificate
O.S.S.T.F. Category IV
St. Johns Ambulance 1st Aid current
National Coaching: Level 1 Gymnastics, Level 2 Basketball

PROFESSIONAL ORGANIZATIONS:

Member of CAHPER
Member of Canadian Society for Psychomotor Learning and Sport Psychology
P.E. Heads Committee for Scarborough Board of Education
Member of OSSTF holding various offices and committees at local staff level, delegate to Annual Assembly.

TEACHING EXPERIENCE

1983-1984 Chairman, Emily Carr Public School, Grade 3 Teacher, Scarborough Board of Education
1968-1983 Head, Girls' Physical Education and Guidance Counsellor at Sir Robert L. Borden Secondary School, Scarborough Board of Education, Scarborough, Ontario

1966-1968 Teacher of Girls' Physical Education, Business Practice and Guidance Counsellor at Midland Avenue Collegiate, Scarborough Board of Education
1961-1968 Teacher of Girls' Physical Education, Danforth Technical School, Toronto Board of Education, Toronto, Ontario
1959-1961 Teacher of Girls' Physical Education and English at St. Mary's District Collegiate, St. Marys, Ontario, St. Marys Board of Education

EXTRA-CURRICULAR INVOLVEMENT:

Coach of many teams over the years including Basketball, Volleyball, Archery, Track and Field, Softball, Gymnastics, Cross Country Skiing, Folkdance
Organizer of Outdoor Education Projects (1969-1982)
Coordinator of extracurricular dance clubs, and choreographer for exhibitions, student performances, school shows.

SPECIAL ACTIVITIES:

Outdoor Education: Initiator (1969) for residential outdoor education programs with Scarborough Board of Education. In Service Training and Safety Committee for Scarborough Board (1970 to 1982) in Outdoor Education, Session Chairman for OSSTF Conference in Outdoor Education 1971. Active participant in Sir Robert L. Borden Secondary School Outdoor Education Program (1969-1982)
Advisory Member of Committee for First Conference at Seneca College, Willowdale, Ontario, on Opportunities for Women in Sport, 1983.
Research Project funded by Ontario Educational Research Council 1983 on Special P.E. Program for SLD students
Participant in Outdoor Ed Courses at Glenmore College, Aviemore, Scotland, 1980, Plas Y Brenen, Wales, 1980 and General Mountaineering Training at Canmore, Alberta, 1983
Presenter, Conference on Research in School P.E., Jyraskyla, Finland, 1983
Co-author of article in Physical Education Review (England) 1983

PERSONAL INTERESTS:

Member of Scarborough Cross Country Ski Club
Various offices in Cottagers' Association of Ontario, Wolf Lake Branch
Promoter and Organizer of local Craft Show

Member of Bruce Trail Hiking Association
Member of Alpine Club of Canada.

CHRISTINA CLARE LITTLE (nee TOZER)

Telephone: 435-6141 (403)

Birthplace: London, England, December 22nd, 1948
I hold British and Canadian citizenship.

Marital Status: Divorced (2 dependents)

1960 - 1967: Attended High School in England and successfully completed the seven year academic programme.

1967 - 1970: Attended "Worcester College of Education", England. Completed the "teacher - training" programme in Modern Educational dance, dance composition and notation with movement studies and Drama.

1970 - 1972: Taught High School in England as a specialist Dance teacher with Subsidiary Drama. Age range taught, 11 years - 18 years.

1971: Became a member of the Laban Art of Movement Guild, having successfully completed the "Standard Examination".

1972: Arrived in Ontario, Canada as a landed immigrant. Married a Canadian, and settled in London, Ontario.

1972 - 1975: Taught with the London, Ontario School Board (2 yrs.) and with York County (1 year) as an Elementary teacher, grades 5/6.

1975: Came out of classroom teaching to raise a family.

1976 - 1977: I was invited by Tom Hennesey, Physical Education Consultant for the London School Board, to conduct a series of twelve workshops in Dance for elementary school teachers. This was part of a professional development Programme, funded by the school board.

Also I had returned to study, part time, at the University of Western Ontario, to upgrade my qualifications to B.A. level. Courses completed include dance notation, history of dance and composition. During these two years I instructed recreational Programmes in dance

and assisted with a major city production of "Hansel and Gretel".

1978 - 1980: My husband's work took us to England for two years. My degree studies were interrupted. During these two years I became interested in Education Philosophies. This led to the beginnings of developing a "personal philosophy" as applicable to dance and the child. My own teaching is deeply rooted in the Laban method and I would by no means call myself "eclectic". However, in order to create and synthesize one must be cognizant of many artistic forms.

1980: I returned to Canada and re-settled in Edmonton.

1981: Orientation year.

1982: I worked with classes 1-5 at Parkallen School, "Waldorf Programme", teaching dance. Staged a Pageant at the school in June, '82.

I also worked with a group of teachers and directed and danced in "Canticle to the Sun", a celebration of Midsummer, which was staged at Mayfair Park.

1983: I registered as a part time student at the University of Alberta to commence studies on a B.Ed. degree.

I was issued a "Letter of Authority" which gave me certification to substitute teach for the Edmonton Public School Board during this year.

April, 1984: In order to hasten completion of my degree, I became a full time student at the University of Alberta.

On the basis of my previous academic studies I was granted two full years advance standing.

As I was unable to specialize in dance I opted for drama, following a secondary route.

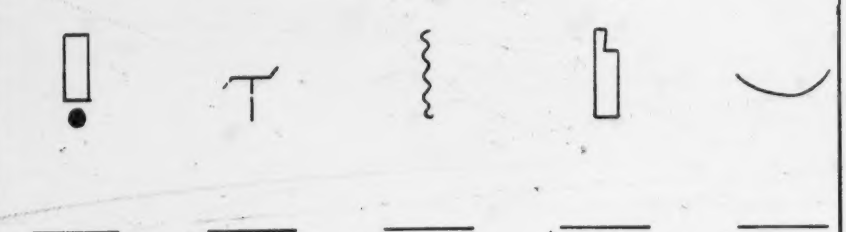
All studies will be complete by the end of Spring Session, 1985.

Appendix 13

EXAMPLE OF 9 SUBTESTS

Testing Session 4

I. Identify the following symbols by writing under each set of symbols the words which describe what is happening.



a ____ b ____ c ____ d ____ e ____

--- time ran out
--- finished

2. Read and dance the following symbols.
You can dance them in any order.

a b c d e

--- time ran out
--- finished

3. Watch the teacher dance the actions and then write down in symbols everything you see in the actions.

Write down the starting position also.

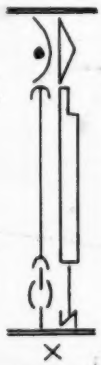
a ____ b ____ c ____ d ____ e ____

--- time ran out
--- finished

4. Describe what is happening in the following sequence. How long do the actions take.

--- time ran out
--- finished

5. Read and dance the following sequence.



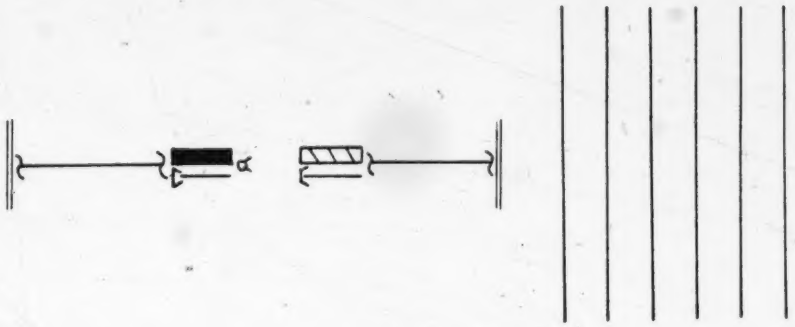
--- time ran out
--- finished

6. Watch the teacher dance the sequence and then write the sequence in symbols.

--- time ran out
--- finished

7. This is a sequence from a dance about a journey in a magic garden.

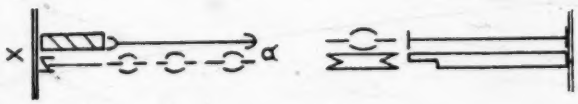
Write a story about what is happening.



--- time ran out

--- finished

8. Read and dance the first part of the dance about a journey in a magic garden.



--- time ran out

--- finished

9. Compose and notate an ending for the dance about your journey in the magic garden.

--- time ran out

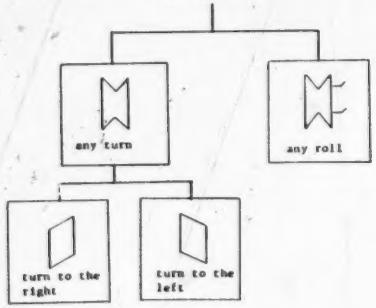
--- finished

Appendix 14

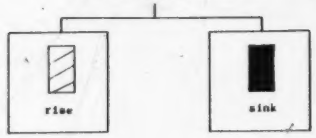
NOTATION VOCABULARY COVERED IN THE TEACHING PROGRAMME AND TESTING INSTRUMENT

24 BASIC ACTION UNITS

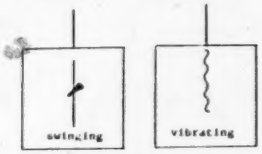
ROTATION - TURNING ROLLING



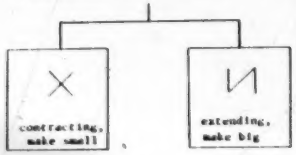
RISE and SINK



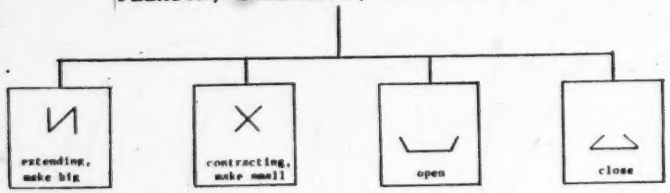
SWING VIBRATION



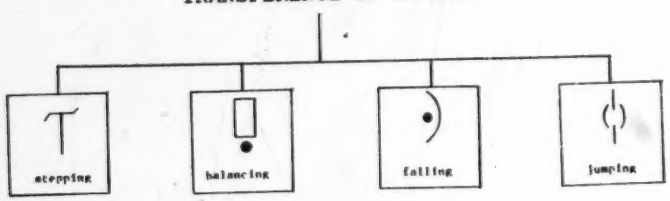
FLEXION and EXTENSION



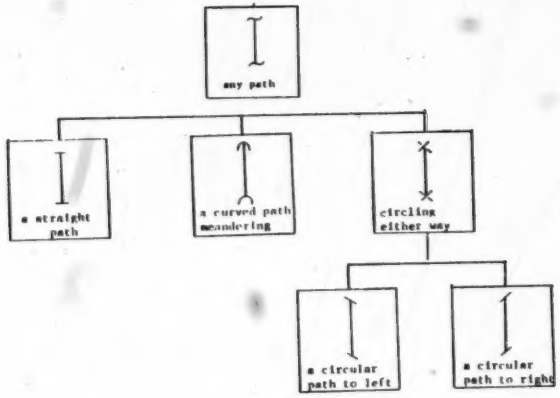
FLEXION, EXTENSION, OPEN and CLOSE



SUPPORT, BALANCE TRANSFERENCE OF WEIGHT



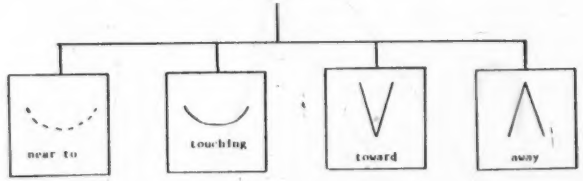
TRAVELLING



15 SPATIAL UNITS

Level: High Medium Low

4 RELATIONSHIP UNITS



13 Principle Units

Graphic Structure

1. Movement is recorded through the use of abstract symbols placed on a vertical staff.

2. The vertical staff represents the flow of time.

3. The notation is written and read from the bottom of the page upwards.

4. Double horizontal lines mark the beginning and ending of the action.

5. Indications placed before the double starting line signify a position; those following the double line signify movement.

6. A separate staff is given to each individual dancer; only one staff is needed if a group of dancers are moving in unison.

7. All parts of a score are joined together by a line at the start and end of each page.

Spatial Indications

1. Direction and level are shown by the shape and shading of the symbol.

2. All directions are basically related to the front of the mover.

Timing and Duration

1. Timing, the movement of occurrence, is indicated by the placement of the symbols on the staff.

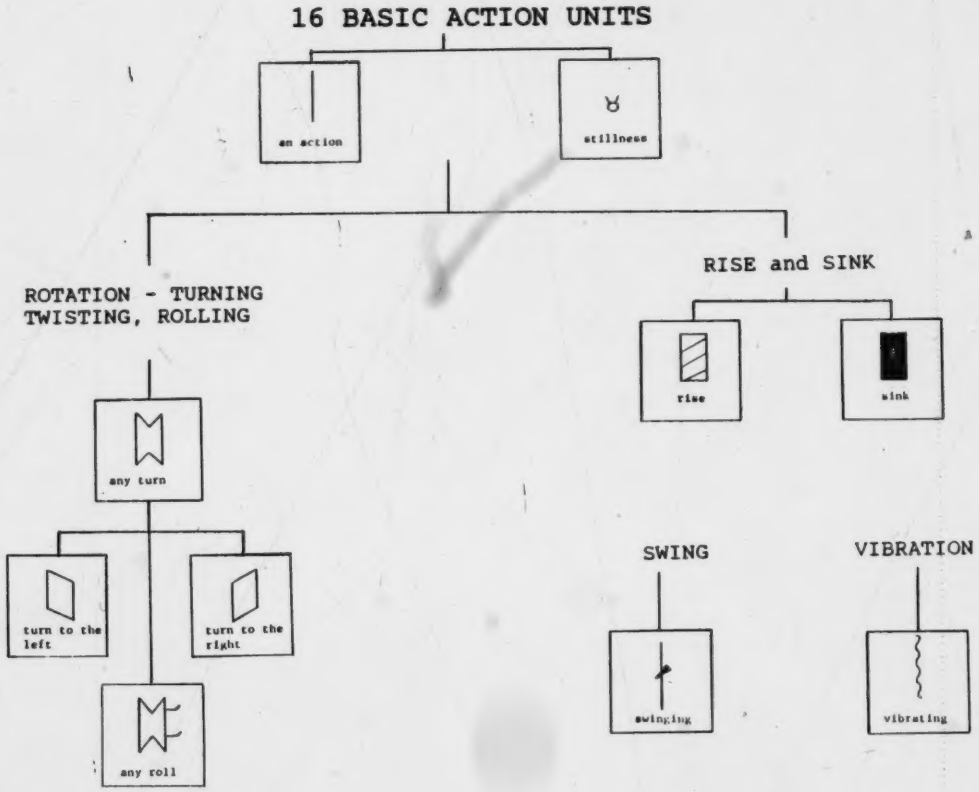
2. Duration of movement is shown by the proportional length of the symbols.

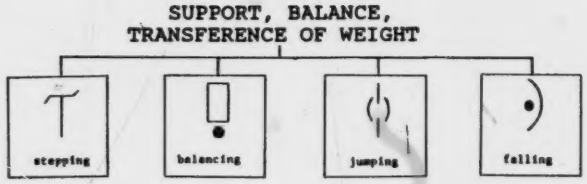
3. Symbols written vertically up the staff indicate the sequence of movements.

4. Symbols written across the staff indicate simultaneity of movements.

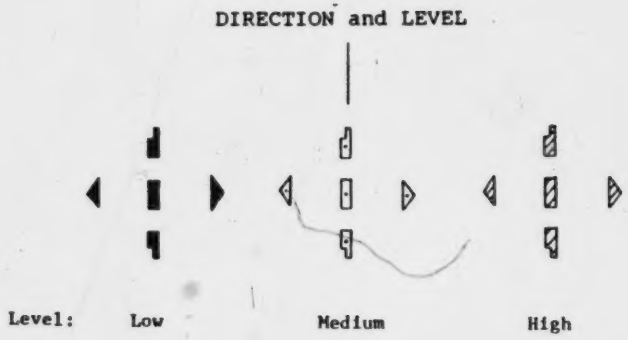
Appendix 15

UNITS OF NOTATION VOCABULARY SELECTED FOR DISCUSSION





15 SPATIAL UNITS



Principle Units

Graphic Structure

1. The notation is written and read from the bottom of the page upwards.

2. Double horizontal lines mark the beginning and ending of the action.

Spatial Indications

1. Direction and level are shown by the shape and shading of the symbol.

2. All directions are basically related to the front of the mover.

Timing and Duration

1. Timing, the movement of occurrence, is indicated by the placement of the symbols on the staff.

2. Duration of movement is shown by the proportional length of the symbols.

3. Symbols written vertically up the staff indicate the sequence of movements.

4. Symbols written across the staff indicate simultaneity of movements.